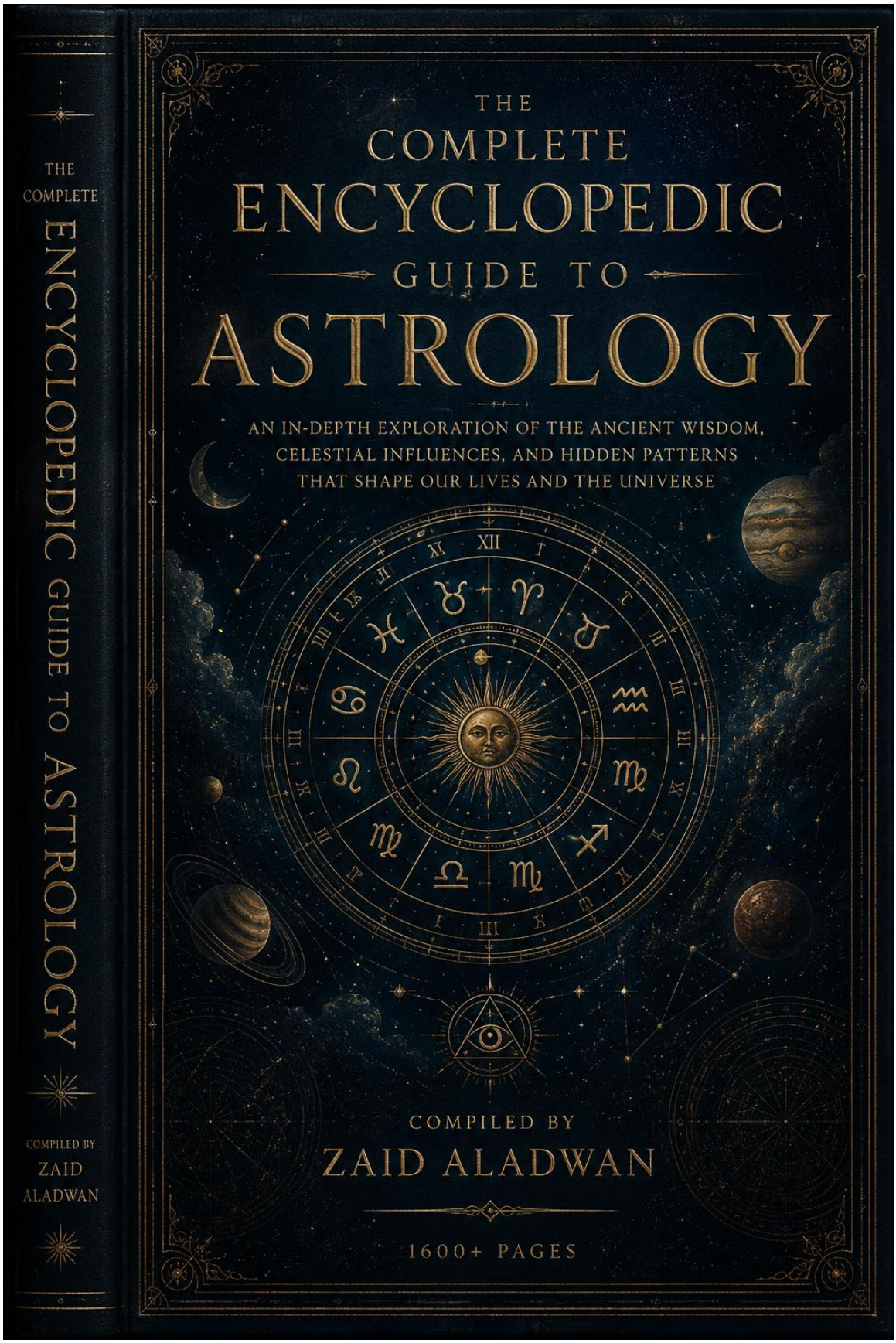

THE COMPLETE ENCYCLOPEDIC GUIDE TO ASTROLOGY

Preface:

This encyclopedia is a comprehensive work on astrology, exceeding 2,500 pages (approximately 2,700 pages). In it, I have carefully selected foundational and authoritative texts in the field of astrology.

The reason I present this discipline is that most available sources on astrology are misleading; approximately 95% of online content focuses on prediction and foretelling the future. In reality, astrology was originally developed by the sages of ancient civilizations to help individuals understand the self and the inner nature—not to attempt to uncover the unseen.

This work is intended for those who wish to study astrology in depth without getting lost among countless scattered books. There are more than 300 astrology books available online, yet I have selected only about seven that are sufficient and comprehensive—this selection being the result of six continuous years of study and reading in this field.

I emphasize again: this discipline was established by the wise men of ancient civilizations, such as the Greek, Vedic, and Babylonian traditions, to facilitate self-understanding, not to predict the unseen.

Finally, this book is written in English. Those who wish to benefit from it may rely on machine translation if they are not proficient in the English language.

And with that, I place my trust in God, and through Him comes success.

zaid n. adwan

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Part one

The book of Ptolemy

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The Project Gutenberg eBook of Ptolemy's Tetrabiblos

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Title: Ptolemy's Tetrabiblos

or Quadripartite, being four books of the influence of the stars ... with a preface, explanatory notes, and an appendix containing extracts from the Almagest of Ptolemy and the whole of his Centiloquy, together with a short notice of Mr. Ranger's zodiacal planisphere and an explanatory plate

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Adapter: Proclus

Other: active 1615-1631 Philip Ranger

Translator: J. M. Ashmand

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*** START OF THE PROJECT GUTENBERG EBOOK PTOLEMY'S TETRABIBLOS ***

PTOLEMY'S TETRABIBLOS

OR

QUADRIPARTITE

BEING

FOUR BOOKS

OF THE

INFLUENCE OF THE STARS

Zaid n. adwan

NEWLY TRANSLATED FROM THE GREEK PARAPHRASE OF PROCLUS

WITH

A PREFACE, EXPLANATORY NOTES

AND

THE COMPLETE ENCYCLOPEDIC GUIDE TO ASTROLOGY

AN APPENDIX

CONTAINING

EXTRACTS FROM THE ALMAGEST OF PTOLEMY

AND THE WHOLE OF HIS

CENTILOQUY

TOGETHER WITH

A Short Notice of Mr. Ranger's Zodiacal Planisphere

AND AN EXPLANATORY PLATE

By J. M. ASHMAND

NEW EDITION

"Ye stars, which are the poetry of Heaven!
If, in your bright leaves, we would read the fate
Of men and empires,—'tis to be forgiven."

LORD BYRON.

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TO THE
AUTHOR OF "WAVERLEY"
THIS TRANSLATION
OF A

Zaid n. adwan

WORK CONTAINING THE BEST ACCREDITED PRINCIPLES

OF

ASTROLOGY

IS DEDICATED

With the most profound admiration of his unrivalled Talents

WHICH COULD ALONE HAVE RESTORED

INTEREST TO THE SPECULATIONS

OF AN

ANTIQUATED SCIENCE

ADVERTISEMENT

The use recently made of Astrology in the poetical machinery of certain works of genius (which are of the highest popularity, and above all praise), seems to have excited in the world at large a desire to learn something of the mysteries of that science which has, in all former ages, if not in these days, more or less engaged reverence and usurped belief. The apparent existence of such a general desire has caused the completion of the following Translation, and its presentation to the public; although it was originally undertaken only in part, and merely to satisfy two or three individuals of the

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grounds on which the now neglected doctrines of Astrology had so long and so fully maintained credit.

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[Pg xi]

PREFACE

Of all sciences, whether true or false, which have at any time engaged the attention of the world, there is not one of which the real or assumed principles are less generally known, in the present age, than those of Astrology. The whole doctrine of this science is commonly understood to have been completely overturned; and, of late, people seem to have satisfied themselves with merely knowing the import of its name. Such contented ignorance, in persons, too, sufficiently informed in other respects, is the more extraordinary, since Astrology has sustained a most conspicuous part throughout the history of the world, even until days comparatively recent. In the East, where it first [Pg xii]arose, at a period of very remote antiquity,[1] and whence it came to subjugate the intellect of Europe, it still even now holds sway. In Europe, and in every part of the world where learning had "impress'd the human soil," Astrology reigned supreme until

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the middle of the 17th century. It entered into the councils of princes, it guided the policy of nations, and ruled the daily actions [Pg xiii]of individuals. All this is attested by the records of every nation which has a history, and by none more fully than by those of England. Yet, with these striking facts before their eyes, the present generation seem never, until now, to have inquired on what basis this belief of their forefathers was established, nor by what authority the delusion (if it was one) could have been for so many ages supported. Among a thousand persons who now treat the mention of Astrology with supercilious ridicule, there is scarcely one who knows distinctly what it is he laughs at, or on what plea his ancestors should stand excused for having, in their day, contemplated with respect the unfortunate object of modern derision.[Pg xiv]

The general want of information on these points, and the indifference with which such want has been hitherto regarded, cannot surely be attributed solely to the modern disrepute of the science; for mankind have usually, in every successive age, exercised great industry in tracing all previous customs, however trifling or obsolete, and in examining all sorts of creeds, however unimportant or erroneous, whenever there has appeared any striking connection between such matters and historical facts; and, since astrology is most unquestionably blended intimately with history, it therefore becomes necessary to seek for some further hypothesis, by which this ignorance and indifference may be accounted for.

Perhaps astrology has been conceived to have borne the same relation to astronomy as alchymy did to chymistry. If such has been the notion, it has certainly been adopted in error, for a modern chymist is still almost an alchymist: it is true that he no longer delays his work in deference to the planets, nor does he now try to make gold, nor to distil elixir of earthly immortality; but nevertheless he still avails himself, to a certain degree, of the same rules and the same means as those of the old alchymist: he is still intent upon the subtle processes of Nature, and still imitates her as far as he can. He reduces the diamond to charcoal by an operation analogous to that by which the

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alchymist sought to transmute lead into gold; and he mainly differs from the alchymist only in having assured himself that there is a point beyond which Nature forbids facsimiles. Not so slightly, however, does the astronomer differ from the astrologer, but *toto cælo*: the astrologer considered the heavenly bodies and their motions merely as the mechanism wherewith he was to weave the tissue of his predictions; and astronomy is no more an integral part of astrology, than the loom is of the web which has been woven by it. To have an idea of what alchymy was, it is sufficient to have an idea of chymistry; but astronomy, in itself, will never give a notion of astrology, which requires additional and distinct consideration.

It may be urged, that in the present day a general idea of this bygone and disused science is quite sufficient for everybody not professedly antiquarian. Such an assertion would doubtless never be controverted, provided the proposed general idea might comprehend the truth. But the present actual general idea of astrology is by no means so comprehensive; indeed, nothing can well be more inaccurate, or even more false: it seems to have been adopted not from the elements of the science itself, but from trite observations made by writers against the science; and consequently the world now wonders at the lamentable defect of understanding that could ever have permitted belief in it—forgetting that astrology has been consigned to neglect, not in consequence of any *primâ facie* palpability in its imputed fallacies, nor indeed of any special skill or acuteness on the part of its professed adversaries, but rather in consequence of the sudden and astonishing growth of other undoubted sciences, with which it has been [Pg xv]presumed to be incompatible, and which during the thousands of years of the reign of astrology were either unborn, or still slumbering in continued infancy.[2]

The words “professed adversaries,” which have just now been used, are of course not intended to be applied to those mighty explorers of Nature’s laws and man’s powers, who, in their lofty career, may have made an incidental swoop at the pretensions of astrology. Directly engaged in more exact pursuits, they stopped not to dissect this their

casual prey, which, after having been thus struck by eagles, was left to regale crows and daws, and these, in their convivial loquacity, accused their unfortunate victims of crimes incapable of being committed, and of offences which had never been imagined. Of the real faults of their victim these garrulous bipeds seem not to have been aware, or, if aware, they seem to have considered them as not sufficiently prominent. Nor was this want of candour or information absolutely confined to the mere vulgar herd of vituperative scribblers, for even the sparkling essay against astrology, written by Voltaire (in his irrepressible desire to convince the world that he was *au fait* in everything), proves only that the writer, though the most generally informed man of his time, had mistaken the really assailable points of the object of his attack.

The author of the present Translation has no intention now of either advocating or impugning the doctrines of the science of which his Translation discourses: his purpose is a different one. He has that sort of respect for "the dead, which are really dead," which, although it does not incline him to "praise" them "*more* than the living, which are yet alive," is still sufficient to incite him to endeavour to avert the imputation of idiot credulity, to which their faith in astrology seems now to subject them in the general opinion of the enlightened "living." And, while he disclaims all idea of presuming to offer any argument on either side of the question, as to the validity [Pg xvi]of the science, he must still, at the same time, confess his admiration of the ingenuity and contrivance manifest in its construction, and avow his readiness to believe that all its harmonized complications might have easily held dominion over some of the strongest minds in that darker period when it flourished.

In executing here the desire of attempting to vindicate the ancient credence in astrology, an elaborate disquisition would surely be not only unnecessary, but misplaced: it seems sufficient to refer the reader to the work of which the following is a translation, and to these undisputed facts—that the science was formerly inculcated by the highest and most erudite authorities of the period—that it was insisted on by

votaries in all parts of the world, attesting and producing instances of its truth;—and, moreover, that it was so finely and beautifully put together, as to cause the only deficiency of one small, though most important, link in its whole chain of argument, to be undetected by dull minds, and readily supplied by enthusiastic genius. For centuries after centuries all branches of learning were either made subservient to astrology, or carried on in close alliance with it; and many of the illustrious names which it recalls to our recollection are gratefully reverenced even by modern science. The genius of Roger Bacon, although he was the first of that school of natural philosophy which acknowledges none but experimented truths, was nevertheless bowed to the doctrines of judicial astrology; and his greater Namesake, who after an interval of several centuries succeeded to him in giving proper direction to the mental energy, was still an arguer in favour of celestial influences: it may be, therefore, fairly inferred, that the subtle spell which had strength to enthrall "stuff" so "stern," could have been of no weak or vulgar order, but that it was sufficiently potent and refined to interest and amuse even the present age.[3]

[Pg xvii]In this little volume will be found the whole of the elements of astrology, and the entire ground-work of those stupendous tomes in folio and quarto on the same subject, which were produced in myriads during the 16th and 17th centuries, for the due mystification of the then world. The present volume is addressed equally to the general reader, as well as to the votary of pure astrology, if any such there be; to the one it offers amusement; for the other, it should contain the most glowing interest. Even to the speculative metaphysician it will furnish food for contemplation; for, in addition to its peculiar hypothesis of cause and effect, it develops many of those apparent incongruities of character so often united in the same individual; and this development, even although adapted to the doctrine of the stars, still merits attention; inasmuch as the phenomena of which it treats (in whatever way they may be produced or regulated) will ever remain in actual existence.

The only English translation of Ptolemy's Tetrabiblos, hitherto published, appears to have been first set forth in 1701, under the name of "The Quadripartite." That publication has been long removed from general sale; and its gross misinterpretation of the author, caused by the carelessness or ignorance of Whalley and his assistants, by whom it was produced, has rendered most of its pages unintelligible: its absence is, therefore, scarcely to be regretted. The second edition of the same translation, professing to be "revised, corrected, and improved," and published by Browne and Sibley, in 1786, was not, in any one instance, purified from the blunders and obscurities which disgraced its predecessor: it seems, in fact, less excusable than the former edition, of which it was merely a reprint, without being at all corrected, not even in certain typographical *errata* which the former printer had been zealous enough to point out in his final page. Even this second publication, worthless as it intrinsically is, can rarely now be met with, and, like the former, only at a very heavy price.

The present Translation has been made from Proclus's Greek Paraphrase of Ptolemy's original text; the edition followed is that of the Elzevirs, dated in 1635.[4] But, in the course of translation, continual references have been also had to various editions of the original text, in order to ascertain the proper acceptation of doubtful passages. The editions thus inspected were that by Camerarius, printed at Nuremberg in 1535; that by Melancthon, printed at Basle in 1553; and that by Junctinus, printed, with his own enormous commentaries, at Lyons, in 1581. Independently of [Pg xviii]these references, the present translation has been collated with the Latin of Leo Allatius, and with two other Latin translations: one printed at Basle, together with a translation of the Almagest in 1541; the other by itself at Perugio, in 1646.[5] The Translator has devoted all this extreme care and attention to his labours, in the wish to render Ptolemy's astro-judicial doctrine [Pg xix]into English as purely and perfectly as possible; and, with the same view, he has likewise added, in an Appendix, certain extracts from such parts of the Almagest as were found to be referred to in his present work. Further illustration is

also given by notes gathered from the "Primum Mobile" of Placidus,[6] and from a variety of other sources whence any elucidation of the text might be derived. Even Whalley's "Annotations" (to use his own grandiloquent designation) have occasionally yielded information, not altogether unimportant, although generally incomplete.

It seems improper to close this Preface (notwithstanding the bulk it has already attained), without annexing the following short notice of the life and works of the great man from whom the Tetrabiblos has emanated.[Pg xx]

Claudius Ptolemy was born at Pelusium, in Ægypt, and became an illustrious disciple of the school of Alexandria, in which city he flourished during the reign of Adrian and that of Antoninus Pius. The date of his birth has been commonly assigned to the 70th year of the Christian æra; but the accuracy of this date seems questionable; for he has himself noted in one part of his works, that Antoninus reigned twenty-three years. He must have, therefore, survived that prince; and, as it is not probable that he continued his scientific labours until after ninety years of age, which he must have done had he been born about the year 70, because Antoninus died in the year 161, it seems that his birth would be more properly ascribed to some later period. Moreover, it is asserted by the Arabians, that he died in the 78th year of his age; and a similar statement is also made by Luca Gauricus, in the dedication of his version of the Almagest[7] to Dominico Palavicini: Gauricus has, however, placed his death in the year 147, which does not accord with the fact of his having survived Antoninus.

Ptolemy has recorded that he observed, at Alexandria, an eclipse of the Moon, in the 9th year of Adrian; and that he made many observations upon the fixed stars in the 2nd year of Antoninus Pius: whence it may be concluded, that his observations upon the heavens were principally made during the period from A.D. 125 to A.D. 140, or thereabouts; and it also follows, of course, that the supposition, entertained by some authors, of his identity with the Ptolemy who was always in attendance upon Galba, as his personal astrologer, and who promised Otho that he should survive Nero and obtain

the empire, is entirely without foundation. To Gauricus's[8] version of the Almagest there is also another dedication, addressed to Pope Sixtus, and composed by George Trapezuntius, describing Ptolemy as "*regiâ stirpe oriundum*," and explaining that he had, "with a truly regal mind," applied himself to the sciences, because the ancient sceptre of the Ptolemies had previously passed into the hands of Cleopatra, and because the kingdom of Ægypt had been since reduced to the state of a Roman province. The authentic details of the circumstances of Ptolemy's life are, however, extremely few. It is said that he was distinguished among the Greeks by the epithets "most wise," and "most divine," on account of his great learning; and, according to the Preface to Whalley's translation of the Tetrabiblos, the Arabians report that "he was extremely abstemious, and rode much on horseback"; adding, that although he was "spruce in apparel," yet his breath was not remarkable for an agreeable odour.

The errors of the Ptolemaic theory of the universe have now been long discarded; but there are many points in which modern sciences, and modern astronomy in particular, have reaped incalculable benefits from the labours and researches of its great founder. He has preserved and [Pg xxi]transmitted to us the observations and principal discoveries of remoter periods, and has enriched and augmented them with his own. He corrected Hipparchus's catalogue of the fixed stars, and formed tables for the calculation and regulation of the motions of the Sun, Moon, and planets. He was, in fact, the first who collected the scattered and detached observations of Aristotle, Hipparchus, Posidonius, and others on the economy of the world, and digested them into a system, which he set forth in his Μεγαλη Σνταξις or Great Construction, divided into thirteen books, and called, after him, the Ptolemaic System. This and all his other astronomical works are founded upon the hypothesis, that the earth is at rest in the centre of the universe, and that the heavenly bodies, stars, and planets, all move round it in solid orbs, whose motions are all directed by one *primum mobile*, or first mover, of which he discourses at large in the "Great Construction." In that work he also treats of

the figure and divisions of the earth, of the right and oblique ascensions of the heavenly bodies, and of the motions of the Sun, Moon, and planets; and he gives tables for finding their situations, latitudes, longitudes, and motions: he treats also of eclipses, and the methods of computing them; and he discourses of the fixed stars, of which he furnishes a numerous catalogue, with their magnitudes, latitudes, and longitudes.[9]

It has been truly said, that "Ptolemy's order, false as it was, enabled observers to give a plausible account of the motions of the Sun and Moon, to foretell eclipses, and to improve geography[10];" or, in other words, that it represented the actual phenomena of the heavens as they really appear to a spectator on the earth. It is therefore clear [Pg xxii]that Ptolemy's astrology is just as applicable to modern and improved astronomy as it was to his own.[11]

In the year 827[12] the "Great Construction" was translated by the Arabians into their own language, and by them communicated to Europe. It is through them that it has been usually known by the name of the Almagest. In the 13th century, the Emperor Frederic II caused it to be translated from the Arabic into Latin, and Sacrobosco[13] was consequently enabled to write his famous work upon the sphere. It was not, however, until about the end of the 15th century that the "Great Construction" was translated into Latin from the *original* text; and this important service was rendered to science by Purbach, a professor of philosophy at Vienna, who learned the Greek tongue at the instigation of Cardinal Bessarion. By means of this translation, the Ephemerides of George Müller, surnamed Regiomontanus, a disciple of Purbach's, were first composed. The Greek text of the Almagest, or Great Construction, was first published at Basle, by Simon Grynæus, in 1538; and it was again printed at the same place in 1551, with certain other works of Ptolemy.[14] The rest of Ptolemy's works connected with astronomy, and now extant, are the Tetrabiblos, or Four Books of the Influence of the Stars[15] (now translated); the Centiloquy, or Fruit of his Four Books, being a kind of supplement to the former; and the Significations of the Fixed Stars. The last is merely

a daily calendar, showing the risings and settings of the stars, and the nature of the weather thereby produced. There are likewise extant his geographical work (which has rendered important service to modern geographers), and also his celebrated book on Harmonics, or the Theory of Sound.

[Pg xxiii]Proclus, to whom the world is indebted for the improved text of the Tetrabiblos,[16] was born at Constantinople, in the year 410. He studied [Pg xxiv]at Alexandria and at Athens, and became very eminent among the later Platonists. He succeeded Syrianus, a celebrated philosopher, in the rectorship of the Platonic school at Athens, and died there in 485.[17] He was a most voluminous author, in poetry as well as in prose. Among his works there are Hymns to the Sun, to Venus, and to the Muses; Commentaries upon several pieces of Plato, and upon Ptolemy's Tetrabiblos[18]; an Epitome or Commendium of all the Astronomical Precepts demonstrated in the Almagest; and elements of Theology and Natural Philosophy. He was in dispute with the Christians on the question of the eternity of the world, which he undertook to prove in eighteen elaborate arguments. A late writer in a certain periodical work has erroneously identified him with another Proclus, who was in favour with the Emperor Anastasius, and who destroyed the ships of Vitalianus, when besieging Constantinople in 514, by burning them with great brazen mirrors, or *specula*.

Signs of the Zodiac.

♈	Aries	♎	Libra
♉	Taurus	♏	Scorpio
♊	Gemini	♐	Sagittarius
♋	Cancer	♑	Capricorn
♌	Leo	♒	Aquarius

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♍ Virgo ♓ Pisces

[Pg 1]

PTOLEMY'S TETRABIBLOS

OR

FOUR BOOKS

OF THE

INFLUENCE OF THE STARS

BOOK THE FIRST

CHAPTER I

PROEM

The studies preliminary to astronomical prognostication, O Syrus! are two: the one, first alike in order and in power, leads to the knowledge of the figurations of the Sun, the Moon, and the stars; and of their relative aspects to each other, and to the earth: the other takes into consideration the changes which their aspects create, by means of their natural properties, in objects under their influence.

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The first mentioned study has been already explained in the Syntaxis[19] to the utmost practicable extent; for it is complete in itself, and of essential utility even without being blended with the second; to which this treatise will be devoted, and which is not equally self-complete. The present work shall, however, be regulated by that due regard for truth which philosophy demands: and since the material quality of the objects acted upon renders them weak and variable, and difficult to be accurately apprehended, no positive or infallible rules (as were given in detailing the first doctrine, which is always governed by the same immutable laws) can be here set forth: while, on the other hand, a due observation of most of those general events, which evidently trace their causes to the Ambient, shall not be omitted.

It is, however, a common practice with the vulgar to slander everything which is difficult of attainment, and surely they who condemn the first of these two studies must be considered totally blind, whatever arguments may be produced in support of those who impugn the second. [Pg 2]There are also persons who imagine that whatever they themselves have not been able to acquire, must be utterly beyond the reach of all understanding; while others again will consider as useless any science of which (although they may have been often instructed in it) they have failed to preserve the recollection, owing to its difficulty of retention. In reference to these opinions, therefore, an endeavour shall be made to investigate the extent to which prognostication by astronomy is practicable, as well as serviceable, previously to detailing the particulars of the doctrine.

CHAPTER II

KNOWLEDGE MAY BE ACQUIRED BY
ASTRONOMY TO A CERTAIN EXTENT

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That a certain power, derived from the æthereal nature, is diffused over and pervades the whole atmosphere of the earth, is clearly evident to all men. Fire and air, the first of the sublunary elements, are encompassed and altered by the motions of the æther. These elements in their turn encompass all inferior matter, and vary it as they themselves are varied; acting on earth and water, on plants and animals.[20]

[Pg 3]The Sun, always acting in connection with the Ambient, contributes to the regulation of all earthly things: not only by the revolution of the seasons does he bring to perfection the embryo of animals, the buds of plants, the spring of waters, and the alteration of bodies, but by his daily progress also he operates other changes in light, heat, moisture, dryness and cold; dependent upon his situation with regard to the zenith.

The Moon, being of all the heavenly bodies the nearest to the Earth, also dispenses much influence; and things animate and inanimate sympathize and vary with her. By the changes of her illumination, rivers swell and are reduced; the tides of the sea are ruled by her risings and settings; and plants and animals are expanded or collapsed, if not entirely at least partially, as she waxes or wanes.

The stars likewise (as well the fixed stars as the planets), in performing their revolutions,[21] produce many impressions on the Ambient. They cause heats, winds, and storms, to the influence of which earthly things are conformably subjected.

And, further, the mutual configurations of all these heavenly bodies, by commingling the influence with which each is separately invested, produce a multiplicity of changes. The power of the Sun however predominates, because it is more generally distributed; the others either co-operate with his power or diminish its effect: the Moon more frequently and more plainly performs this at her conjunction, at her first and last quarter, and at her opposition: the stars act also to a similar purpose, but at longer intervals and more obscurely than the Moon; and their operation principally depends upon the mode of their visibility, their occultation and their declination.

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From these premises it follows not only that all bodies, which may be already compounded, are subjected to the motion of the stars, but also that the impregnation and growth of the seeds from which all bodies proceed, are framed and moulded by the quality existing in the Ambient at the time of such impregnation and growth. And it is upon this principle that the more observant husbandmen and shepherds are accustomed, by drawing their inferences from the particular breezes which may happen at seed-time and at the impregnation of their cattle, to form predictions as to the quality of the expected produce. In short, however unlearned in the philosophy of nature, these men can foretell, solely by their previous observation, all the more general [Pg 4]and usual effects which result from the plainer and more visible configurations of the Sun, Moon, and stars. It is daily seen that even most illiterate persons, with no other aid than their own experienced observation, are capable of predicting events which may be consequent on the more extended influence of the Sun and the more simple order of the Ambient, and which may not be open to variation by any complex configurations of the Moon and stars towards the Sun. There are, moreover, among the brute creation, animals who evidently form prognostication, and use this wonderful instinct at the changes of the several seasons of the year, spring, summer, autumn, and winter; and, also, at the changes of the wind.

In producing the changes of the seasons, the Sun itself is chiefly the operating and visible cause. There are, however, other events which, although they are not indicated in so simple a manner, but dependent on a slight complication of causes in the Ambient, are also foreknown by persons who have applied their observation to that end. Of this kind, are tempests and gales of wind, produced by certain aspects of the Moon, or the fixed stars, towards the Sun, according to their several courses, and the approach of which is usually foreseen by mariners. At the same time, prognostication made by persons of this class must be frequently fallacious, owing to their deficiency in science and their consequent inability to give necessary consideration to the time and place, or

to the revolutions of the planets; all which circumstances, when exactly defined and understood, certainly tend towards accurate foreknowledge.

When, therefore, a thorough knowledge of the motions of the stars, and of the Sun and Moon, shall have been acquired, and when the situation of the place, the time, and all the configurations actually existing at that place and time, shall also be duly known; and such knowledge be yet further improved by an acquaintance with the natures of the heavenly bodies—not of what they are composed, but of the effective influences they possess; as, for instance, that heat is the property of the Sun, and moisture of the Moon, and that other peculiar properties respectively appertain to the rest of them;—when all these qualifications for prescience may be possessed by any individual, there seems no obstacle to deprive him of the insight, offered at once by nature and his own judgment, into the effects arising out of the quality of all the various influences compounded together. So that he will thus be competent to predict the peculiar constitution of the atmosphere in every season, as, for instance, with regard to its greater heat or moisture, or other similar qualities; all which may be foreseen by the visible position or configuration of the stars and the Moon towards the Sun.

Since it is thus clearly practicable, by an accurate knowledge of the points above enumerated, to make predictions concerning the proper quality of the seasons, there also seems no impediment to the formation of similar prognostication concerning the destiny and disposition of every human being. For by the constitution of the Ambient, even at the [Pg 5]time of any individual's primary conformation, the general quality of that individual's temperament may be perceived; and the corporeal shape and mental capacity with which the person will be endowed at birth may be pronounced; as well as the favourable and unfavourable events indicated by the state of the Ambient, and liable to attend the individual at certain future periods; since, for instance, an event dependent on one disposition of the Ambient will be advantageous to a particular temperament,

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and that resulting from another unfavourable and injurious. From these circumstances, and others of similar import, the possibility of prescience is certainly evident.

There are, however, some plausible assailants of this doctrine, whose attacks although greatly misapplied seem yet worthy of the following observations.

In the first place, the science demands the greatest study and a constant attention to a multitude of different points; and as all persons who are but imperfectly practised in it must necessarily commit frequent mistakes, it has been supposed that even such events as have been truly predicted have taken place by chance only, and not from any operative cause in nature. But it should be remembered that these mistakes arise, not from any deficiency or want of power in the science itself, but from the incompetency of unqualified persons who pretend to exercise it. And, besides this, the majority of the persons who set themselves up as professors of this science, avail themselves of its name and credit for the sake of passing off some other mode of divination; by that means defrauding the ignorant, and pretending to foretell many things which from their nature cannot possibly be foreknown; and consequently affording opportunities to more intelligent people to impugn the value even of such predictions as can rationally be made. The reproach, however, thus brought upon the science is wholly unmerited; for it would be equally just to condemn all other branches of philosophy, because each numbers among its professors some mischievous pretenders.

Secondly, it is not attempted to be denied that any individual, although he may have attained to the greatest possible accuracy in the science, must still be liable to frequent error, arising out of the very nature of his undertaking, and from the weakness of his limited capacity in comparison with the magnitude of his object. For the whole theory of the quality of matter is supported by inference rather than by positive and scientific proof; and this is caused principally by the concretion of its temperament out of a multitude of dissimilar ingredients. And, although the former configurations of the planets have been observed to produce certain consequences (which have been adapted

to configurations now taking place), and are, after long periods, and in a greater or less degree, resembled by subsequent configurations, yet these subsequent configurations never become exactly similar to those which have preceded them. For an entire return [Pg 6]of all the heavenly bodies to the exact situation in which they have once stood with regard to the earth will never take place, or at least not in any period determinable by human calculation, whatever vain attempts may be made to acquire such unattainable knowledge.[22] The examples referred to for guidance being therefore not exactly similar to the existing cases to which they are now applied, it must naturally follow that predictions are sometimes not borne out by the events. Hence arises the sole difficulty in the consideration of events produced by the Ambient. For no other concurrent cause has been hitherto combined with the motion of the heavenly bodies; although the doctrine of nativities, particularly that part of it relating to peculiar individual temperament, demands also the consideration of other concomitant causes, which are neither trifling nor unimportant, but essentially potent in affecting the individual properties of the creatures born. Thus the variety in seed has the chief influence in supplying the peculiar quality of each species; for, under the same disposition of the Ambient and of the horizon, each various kind of seed prevails in determining the distinct formation of its own proper species; thus man is born, or the horse is foaled; and by the same law are brought forth all the other various creatures and productions of the earth. It is also to be remembered, that considerable variations are caused in all creatures by the respective places where they may be brought forth: for although, under the same disposition of the Ambient, the germs of the future creatures may be of one species, whether human or of the horse, the difference in situation, of the places in which they are generated, produces a dissimilarity in the body and spirit of one from the body and spirit of another: and in addition to this it must be considered that different modes of nurture, and the variety of ranks, manners, and customs, contribute to render the course of life of [Pg 7]one individual greatly different from that of another[23]; consequently, unless every one of these varieties be duly

blended with the causes arising in the Ambient, the prejudgment of any event will doubtless be very incomplete. For, although the greatest multiplicity of power exists in the Ambient, and although all other things act as concurrent causes in unison with it, and can never claim it as a concurrent cause in subservience to them, there will still, nevertheless, be a great deficiency in predictions attempted to be made by means of the heavenly motions alone, without regard to the other concurrent causes just now adverted to.

Under these circumstances, it would seem judicious neither to deny altogether the practicability of prescience, because prognostications thus imperfectly derived are sometimes liable to be fallacious; nor, on the other hand, to admit that all events, whatever, are open to previous inquiry; as if such inquiry could in all cases be securely conducted without having recourse to mere inference, and as if it were not limited by the narrow extent of mere human abilities. The art of navigation, for instance, is not rejected, although it is in many points incomplete; therefore the bare fact that predictions are frequently imperfect cannot authorise the rejection of the art of prescience: the magnitude of its scope, and the faint resemblance that it bears to a divine attribute, should rather demand grateful commendations, and receive the utmost regard and attention. And, since no weakness is imputed to a physician, because he inquires into the individual habit of his patient, as well as into the nature of the disease, no imputation can justly attach to the professor of prognostication, because he combines the consideration of species, nurture, education and country, with that of the motion of the heavens: for as the physician acts but reasonably, in thus considering the proper constitution of the sick person as well as his disease; so, in forming predictions, it must surely be justifiably allowable to comprehend in that consideration every other thing connected with the subject in addition to the motion of the heavens, and to collect and compare with that motion all other co-operating circumstances arising elsewhere.

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CHAPTER III

THAT PRESCIENCE IS USEFUL

It appears, then, that prescience by astronomy is possible under certain adaptation; and that alone it will afford premonition, as far as symptoms in the Ambient enable it to do so, of all such events as happen to men by the influence of the Ambient. These events are, from their commencement, always in conformity with the spiritual and corporeal faculties, and their occasional affections; as well as with the shorter or longer duration of those affections. They are also conformable with other things which, although not actually in man's immediate person, are still absolutely and naturally connected with him: in connection with his body they are applicable to his estate, and his conjugal cohabitations; in connection with his spirit, they relate to his offspring[24] and his rank; and they are also connected with all fortuitous circumstances which may occasionally befall him.

That the foreknowledge of these can be attained has already been demonstrated; and it remains to speak of the utility of the attainment. First, however, let it be said in what respect and with what view it is proposed to draw advantage from this science; if it be considered in its tendency to promote the good of the mind, no object more advantageous can surely be wanting to induce the world to rejoice and delight in it, since it offers an acquaintance with things divine and human: if it be considered in respect to the benefits it is capable of conferring on the body, its utility in this view also, will be found on comparison to excel that of all other arts conducive to the comforts of life, for it is of more general application and service than all the others together. And, although it may be objected to the art of prescience, that it does not co-operate towards

the acquirement of riches or glory, let it also be remembered that the same objection attaches to every other art and science; since there is not one which can of itself produce either riches or glory, not yet is there one which is on that plea deemed useless: it seems, therefore, that the science of prognostication, with its high qualifications and its aptitude to the most important objects, does not, in any greater degree, deserve to be condemned.

In general, however, the persons who attack and reprobate it as being useless, do not pay due regard to the manner in which it becomes necessary; but deny its utility on the specious argument that it is [Pg 9]superfluous and puerile to attempt to foreknow things which must inevitably come to pass: thus considering it in a mode at once abstracted, unlearned, and unfair. For, in the first place, this fact ought to be kept in view, that events which necessarily and fully happen, whether exciting fear or creating joy, if arriving unforeseen, will either overwhelm the mind with terror or destroy its composure by sudden delight; if, however, such events should have been foreknown, the mind will have been previously prepared for their reception, and will preserve an equable calmness, by having been accustomed to contemplate the approaching event as though it were present, so that, on its actual arrival, it will be sustained with tranquillity and constancy.

In the next place, it must not be imagined that all things happen to mankind, as though every individual circumstance were ordained by divine decree and some indissoluble supernal cause; nor is it to be thought that all events are shown to proceed from one single inevitable fate, without being influenced by the interposition of any other agency. Such an opinion is entirely inadmissable; for it is on the contrary most essential to observe, not only the heavenly motion which, perfect in its divine institution and order, is eternally regular and undeviating; but also the variety which exists in earthly things, subjected to and diversified by the institutions and courses of nature, and in connection with which the superior cause operates in respect to the accidents produced.

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It is further to be remarked that man is subject, not only to events applicable to his own private and individual nature, but also to others arising from general causes. He suffers, for instance, by pestilences, inundations, or conflagrations, produced by certain extensive changes in the Ambient, and destroying multitudes at once; since a greater and more powerful agency must of course always absorb and overcome one that is more minute and weaker. In great changes, therefore, where a stronger cause predominates, more general affections, like those just mentioned, are put in operation, but affections which attach to one individual solely are excited when his own natural constitution peculiar to himself may be overcome by some opposing impulse of the Ambient, however small or faint. And in this point of view it is manifest that all events whatsoever, whether general or particular, of which the primary cause is strong and irresistible, and against which no other contrary agency has sufficient power to interpose, must of necessity be wholly fulfilled; and that events indicated by a minor cause must of course be prevented and annihilated, when some other agency may be found contending for an opposite effect; if, however, no such opposing agency can be found, they also must be fulfilled, in due succession to the primary cause. Nevertheless, the fulfilment of events thus indicated must not be ascribed solely to the vigour of the cause producing them, nor to any inevitable fate, but rather to the absence of any opposing influence capable of prevention. And thus, with all [Pg 10]things whatsoeverwhich trace their causes and origin to nature, the case is exactly similar; for stones,[25] plants, animals, wounds, passions, and diseases, all will of necessity operate on man to a certain degree; and they fail to do so, if antidotes be found and applied against their influence.

In exercising prognostication, therefore, strict care must be taken to foretell future events by that natural process only which is admitted in the doctrine here delivered; and, setting aside all vain and unfounded opinions, to predict that, when the existing agency is manifold and great, and of a power impossible to be resisted, the

corresponding event which it indicates shall absolutely take place; and also, in other cases, that another event shall not happen when its exciting causes are counteracted by some interposing influence. It is in this manner that experienced physicians, accustomed to the observation of diseases, foresee that some will be inevitably mortal, and that others are susceptible of cure.

Thus, when any opinion is given by the astrologer with respect to the various accidents liable to happen, it should be understood that he advances nothing more than this proposition; viz. that, by the property inherent in the Ambient, any conformation of it, suitable to a particular temperament, being varied more or less, will produce in that temperament some particular affection. And it is also to be understood that he ventures this opinion with the same degree of confidence, as that with which a physician may declare that a certain wound will increase or grow putrid; or a man acquainted with metals say that the magnet[26] will attract iron. But neither the increase nor putrefaction of the wound nor the magnet's attraction of iron, is ordained by any inevitable law, although these consequences must necessarily follow, in due obedience to the first principles of the existing order of nature, when no means of prevention can be found and applied. But, however, neither of these consequences will take place, when such antidotes shall be presented as will naturally prevent them—and a similar [Pg 11]consideration should be given to the predictions of the astrologer—because, if garlick be rubbed on the magnet, iron will experience no attraction;[27] and if proper medicines be applied to the wound, it will cease to increase or to putrefy. And therefore all events which happen to mankind take place also in the regular course of nature, when no impediments thereto are found or known: but again, on the other hand, if any impediments or obstructions be found in the way of events which may be predicted by the regular course of nature to happen, such events will either not take place at all, or, if they should take place, will be much diminished in their force and extent.

The same order and consequence exist in all cases, whether the events have a general or only a particular operation; and it may therefore well be demanded, why prescience is believed to be possible as far as it regards general events, and why it is allowed to be serviceable in preparing for their approach; while in particular instances its power and use are altogether denied. That the weather and the seasons, and the indications of the fixed stars, as well as the configurations of the Moon, afford means of prognostication, many persons admit; and they exercise this foreknowledge for their own preservation and comfort, adapting their constitutions to the expected temperature, by cooling and refreshing things for the summer, and by warm things for the winter. They also watch the significations of the fixed stars, to avoid dangerous weather, in making voyages by sea; and they notice the [Pg 12]aspects of the Moon, when at the full, in order to direct the copulation of their herds and flocks, and the setting of plants or sewing of seeds: and there is not an individual who considers these general precautions as impossible or unprofitable. Still, however, these same persons withhold their assent to the possibility of applying prescience to particular cases; such, for instance, as any particular excess or diminution of cold or heat, whether arising out of the peculiar temperament producing the original cold or heat, or from the combination of other properties; nor do they admit that there are any means of guarding against many of these particular circumstances. And yet, if it be clear that persons, who prepare themselves by cooling things, are less affected by any general heat of the weather, there seems no reason for supposing that a similar preparation would not be equally effectual against any particular conjuncture oppressed by immoderate heat. It appears, however, that this idea, of the impracticability of attaining foreknowledge of particular circumstances, must originate solely in the mere difficulty of the acquirement; which difficulty is certainly rendered peculiarly arduous by the necessity of conducting the enquiry with the greatest accuracy and precision: and to this it must be added, that, as there is rarely found a person capable of arranging the whole subject so perfectly that no part of the opposing influence can escape his attention, it frequently happens that predictions are

not properly regulated by due consideration of that opposing influence, and that the effects are at once considered fully liable to be brought to pass, agreeably to the primary agency and without any intervention. This defect, of not sufficiently considering the opposing influence, has naturally induced an opinion that all future events are entirely unalterable and inevitable. But, since the foreknowledge of particular circumstances, although it may not wholly claim infallibility, seems yet so far practicable as to merit consideration, so the precaution it affords, in particular circumstances, deserves in like manner to be attended to; and, if it be not of universal advantage, but useful in few instances only, it is still most worthy of estimation, and to be considered of no moderate value. Of this, the Ægyptians seem to have been well aware; their discoveries of the great faculties of this science have exceeded those of other nations, and they have in all cases combined the medical art with astronomical prognostication. And, had they been of opinion that all expected events are unalterable and not to be averted, they never would have instituted any propitiations, remedies, and preservatives against the influence of the Ambient, whether present or approaching, general or particular. But, by means of the science called by them Medical Mathematics, they combined with the power of prognostication the concurrent secondary influence arising out of the institutions and courses of nature, as well as the contrary influence which might be procured out of nature's variety; and by means of these they rendered the indicated agency useful and advantageous: since their [Pg 13]astronomy pointed out to them the kind of temperament liable to be acted upon, as well as the events about to proceed from the Ambient, and the peculiar influence of those events, while their medical skill made them acquainted with everything suitable or unsuitable to each of the effects to be procured. And it is by this process that remedies for present and preservatives against future disorders are to be acquired: for, without astronomical knowledge, medical aid would be most frequently unavailing; since the same identical remedies are not better calculated for all persons whatsoever, than they are for all diseases whatsoever.[28]

The practicability and utility of prescience having been thus far briefly explained, the ensuing discourse must be proceeded with. It commences, introductorily, with an account of the efficient properties of each of the heavenly bodies, taken from the rules of the ancients, whose observations were founded in nature. And, first, of the influences of the planets and of the Sun and Moon.

CHAPTER IV

THE INFLUENCES OF THE PLANETARY ORBS

The Sun[29] is found to produce heat and moderate dryness. His magnitude, and the changes which he so evidently makes in the seasons, render his power more plainly perceptible than that of the other heavenly bodies; since his approach to the zenith of any part of the earth creates a greater degree of heat in that part and proportionately disposes its inhabitants after his own nature.

The Moon principally generates moisture; her proximity to the earth renders her highly capable of exciting damp vapours, and of thus operating sensibly upon animal bodies by relaxation and putrefaction. She has, however, also a moderate share in the production of heat, in consequence of the illumination she receives from the Sun.

Saturn produces cold and dryness, for he is most remote both from the Sun's heat and from the earth's vapours. But he is more effective in the production of cold than of dryness. And he and the rest of the planets derive their energy from the positions which they hold with regard to the Sun and Moon; and they are all seen to alter the constitution of the Ambient in various ways.

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Mars chiefly causes dryness, and is also strongly heating, by means of his own fiery nature, which is indicated by his colour, and in consequence of his vicinity to the Sun; the sphere of which is immediately below him.[Pg 14]

Jupiter revolves in an intermediate sphere between the extreme cold of Saturn and the burning heat of Mars, and has consequently a temperate influence: he therefore at once promotes both warmth and moisture. But, owing to the spheres of Mars and the Sun, which lie beneath him, his warmth is predominant: and hence he produces fertilizing breezes.

To Venus also the same temperate quality belongs, although it exists conversely; since the heat she produces by her vicinity to the Sun is not so great as the moisture which she generates by the magnitude of her light, and by appropriating to herself the moist vapours of the earth, in the same manner that the Moon does.

Mercury sometimes produces dryness, and at other times moisture, and each with equal vigour. His faculty of absorbing moisture and creating dryness proceeds from his situation with regard to the Sun, from which he is at no time far distant in longitude; and, on the other hand, he produces moisture, because he borders upon the Moon's sphere, which is nearest to the earth; and, being thus excited by the velocity of his motion with the Sun, he consequently operates rapid changes tending to produce alternately either quality.

CHAPTER V

BENEFICS AND MALEFICS

Of the four temperaments or qualities above mentioned, two are nutritive and prolific, viz. heat and moisture; by these all matter coalesces and is nourished: the other

two are noxious and destructive, viz. dryness and cold; by these all matter is decayed and dissipated.

Therefore, two of the planets, on account of their temperate quality, and because heat and moisture are predominant in them, are considered by the ancients as benefic, or causers of good: these are Jupiter and Venus. And the Moon also is so considered for the same reasons.

But Saturn and Mars are esteemed of a contrary nature, and malefic, or causers of evil: the first from his excess of cold, the other from his excess of dryness.

The Sun and Mercury are deemed of common influence, and productive either of good or evil in unison with whatever planets they may be connected with.

CHAPTER VI

MASCULINE AND FEMININE

There are two primary sexes, male and female; and the female sex partakes chiefly of moisture. The Moon and Venus are therefore said to be feminine, since their qualities are principally moist.

The Sun, Saturn, Jupiter, and Mars are called masculine. Mercury is [Pg 15]common to both genders, because at certain times he produces dryness, and at others moisture, and performs each in an equal ratio.

The stars, however, are also said to be masculine and feminine, by their positions with regard to the Sun. While they are matutine and preceding the Sun, they are masculine; when vespertine and following the Sun, they become feminine.[30]

And they are further regulated in this respect by their positions with regard to the horizon. From the ascendant to the mid-heaven, or from the angle of the west to the

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lower heaven, they are considered to be masculine, being then oriental: and in the other two quadrants, feminine, being then occidental.

CHAPTER VII

DIURNAL AND NOCTURNAL

The day and the night are the visible divisions of time. The day, in its heat and its aptitude for action, is masculine:—the night, in its moisture and its appropriation to rest, feminine.

Hence, again, the Moon and Venus are esteemed to be nocturnal; the Sun and Jupiter, diurnal; and Mercury, common; since in his matutine position he is diurnal, but nocturnal when vespertine.

Of the other two planets, Saturn and Mars, which are noxious, one is considered to be diurnal, and the other nocturnal. Neither of them, however, is allotted to that division of time with which its nature accords (as heat accords with heat), but each is disposed of on a contrary principle: and for this reason, that, although the benefit is increased when a favourable temperament receives an addition of its own nature, yet, the evil arising from a pernicious influence is much mitigated when dissimilar qualities are mingled with that influence. Hence the coldness of Saturn is allotted to the day, to counterbalance its heat; and the dryness of Mars to the night, to counterbalance its moisture. Thus each of these planets, being moderated by this combination, is placed in a condition calculated to produce a favourable temperament.[31]

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CHAPTER VIII

THE INFLUENCE OF POSITION
WITH REGARD TO THE SUN

The respective powers of the Moon and of the three superior planets are either augmented or diminished by their several positions with regard to the Sun.

The Moon, during her increase, from her first emerging to her first quarter, produces chiefly moisture; on continuing her increase from her first quarter to her full state of illumination, she causes heat; from her full state to her third quarter she causes dryness; and from her third quarter to her occultation she causes cold.

The planets, when matutine, and from their first emerging until they arrive at their first station, are chiefly productive of moisture; from their first station until they rise at night, of heat; from their rising at night until their second station, of dryness; and from their second station until their occultation, they produce cold.[32]

But it is also sufficiently plain that they must likewise cause, by their intermixture with each other, many varieties of quality in the Ambient: because, although their individual and peculiar influence may for the most part prevail, it will still be more or less varied by the power of the other heavenly bodies configurated with them.

CHAPTER IX

THE INFLUENCE OF THE FIXED STARS

Next in succession, it is necessary to detail the natures and properties of the fixed stars; all of which have their respective influences, analogous to the influences of the planets: and those stars which form the constellations of the zodiac require to be first described.

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Aries. The stars in the head of Aries possess an influence similar in its effects to that of Mars and Saturn: those in the mouth act similarly to Mercury, and in some degree to Saturn; those in the hinder foot, to Mars; those in the tail, to Venus.[Pg 17]

Taurus. Those stars in Taurus, which are in the abscission of the sign, resemble in their temperament the influence of Venus, and in some degree that of Saturn: those in the Pleiades are like the Moon and Mars. Of the stars in the head, that one of the Hyades which is bright and ruddy, and called Facula,[33] has the same temperament as Mars: the others resemble Saturn, and, partly, Mercury; and those at the top of the horns are like Mars.

Gemini. The stars in the feet of Gemini have an influence similar to that of Mercury, and moderately to that of Venus.

The bright stars in the thighs are like Saturn: of the two bright stars on the heads, the one, which precedes and is called Apollo,[34] is like Mercury; the other which follows, called Hercules,[35] is like Mars.

Cancer. The two stars in the eyes of Cancer are of the same influence as Mercury, and are also moderately like Mars. Those in the claws are like Saturn and Mercury. The nebulous mass in the breast, called the Præsepe, has the same efficacy as Mars and the Moon. The two placed on either side of the nebulous mass, and called the Asini, have an influence similar to that of Mars and the Sun.

Leo. Of the stars in Leo, two in the head are like Saturn and partly like Mars. The three in the neck are like Saturn, and in some degree like Mercury. The bright one in the heart, called Regulus,[36] agrees with Mars and Jupiter. Those in the loins, and the bright one in the tail, are like Saturn and Venus: those in the thighs resemble Venus, and, in some degree, Mercury.

Virgo. The stars in the head of Virgo, and that at the top of the southern wing, operate like Mercury and somewhat like Mars: the other bright stars in the same wing, and those

about the girdle, resemble Mercury in their influence, and also Venus moderately. The bright one in the northern wing, called Vindemiator, is of the same influence as Saturn and Mercury: that called Spica Virginis is like Venus and partly Mars: those at the points of the feet and at the bottom of the garments are like Mercury, and also Mars, moderately.

Libra.[37] Those stars at the points of the claws of Scorpio operate like Jupiter and Mercury: those in the middle of the claws, like Saturn, and in some degree like Mars.

[Pg 18]*Scorpio.* The bright stars in the front of the body of Scorpio have an effect similar to that produced by the influence of Mars, and partly to that produced by Saturn: the three in the body itself, the middle one of which, called Antares,[38] is ruddy and more luminous, are similar to Mars and moderately to Jupiter: those in the joints of the tail are like Saturn and partly like Venus: those in the sting, like Mercury and Mars. The nebula is like Mars and the Moon.

Sagittarius. The stars at the point of the arrow in Sagittarius have influence similar to that of Mars and the Moon: those on the bow, and at the grasp of the hand, act like Jupiter and Mars: the nebula in the face is like the Sun and Mars: those in the waist and in the back resemble Jupiter, and also Mercury moderately: those in the feet, Jupiter and Saturn: the four-sided figure in the tail is similar to Venus, and in some degree to Saturn.

Capricorn. The stars in the horns of Capricorn have efficacy similar to that of Venus, and partly to that of Mars. The stars in the mouth are like Saturn, and partly like Venus: those in the feet and in the belly act in the same manner as Mars and Mercury: those in the tail are like Saturn and Jupiter.

Aquarius. The stars in the shoulders of Aquarius operate like Saturn and Mercury; those in the left hand and in the face do the same: those in the thighs have an influence more consonant with that of Mercury, and in a less degree with that of Saturn: those in

the stream of water have power similar to that of Saturn, and, moderately, to that of Jupiter.

Pisces. Those stars in Pisces, which are in the head of the southern fish, have the same influence as Mercury, and, in some degree, as Saturn: those in the body are like Jupiter and Mercury: those in the tail and in the southern line are like Saturn, and, moderately, like Mercury. In the northern fish, those on its body and back-bone resemble Jupiter, and also Venus in some degree: those in the northern line are like Saturn and Jupiter; and the bright star in the knot acts like Mars, and moderately like Mercury.[39]

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CHAPTER X

CONSTELLATIONS NORTH OF THE ZODIAC

The constellations north of the zodiac have their respective influences, analogous to those of the planets, existing in the mode described in the following list.

- *Ursa Minor.* The bright stars in this constellation
    - are like Saturn, and in some degree like Venus.
- *Ursa Major* is like Mars, but the nebula under the
    - tail resembles the Moon and Venus in its influence.
- *Draco.* The bright stars operate like Saturn and Mars.
- *Cepheus* is like Saturn and Jupiter.
- *Bootes* is like Mercury and Saturn; but the bright and
    - ruddy star, called Arcturus, is like Mars and Jupiter.
- *Corona Borealis* is like Venus and Mercury.

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- *Hercules* (or the Kneeler) is like Mercury.
- *Lyra* is like Venus and Mercury.
- *Cygnus* is like Venus and Mercury.
- *Cassiopeia* is like Saturn and Venus.
- *Perseus* is like Jupiter and Saturn: but the nebula,
    - in the hilt of the sword, is like Mars and Mercury.
- *Auriga.* The bright stars are like Mars and Mercury.
- *Serpentarius* is like Saturn, and moderately like Venus.
- *Serpens* is like Saturn and Mars.
- *Sagitta* is like Saturn, and moderately like Venus.
- *Aquila* is like Mars and Jupiter.
- *Delphinus* is like Saturn and Mars.
- *Equus* (or Pegasus). The bright stars are like Mars and Mercury.
- *Andromeda* is like Venus.
- *Delta* (or the Triangle) is like Mercury.

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CHAPTER XI

CONSTELLATIONS SOUTH OF THE ZODIAC

The influences of the constellations south of the zodiac, existing in a similar mode, are as follows:—

- *Piscis Australis.* The bright star in the mouth is of the same
    - influence as Venus and Mercury.
- *Cetus* is like Saturn.

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- *Orion.* The stars on the shoulders operate similarly to Mars and
    - Mercury; and the other bright stars to Jupiter and Saturn.
- *Fluvius* (or *Eridanus*). The last bright one is of
    - the same influence as Jupiter; the rest are like Saturn.
- *Lepus* is like Saturn and Mercury.
- *Canis.* The bright star in the mouth is like Jupiter, and
    - partly like Mars: the others are like Venus.
- *Procyon.*[40] The bright star is like Mercury, and in some
    - degree like Mars.
- *Hydrus.* The bright stars are like Saturn and Venus.
- *Crater* is like Venus, and in some degree like Mercury.
- *Corvus* is like Mars and Saturn.
- *Argo.* The bright stars are like Saturn and Jupiter.
- *Centaurus.* The stars in the human part of the figure are
    - of the same influence as Venus and Mercury; the bright
    - stars in the horse's part are like Venus and Jupiter.
- *Lupus.* The bright stars are like Saturn, and partly like Mars.
- *Ara* is like Venus, and also Mercury in some degree.
- *Corona Australis.* The bright stars are like Saturn and Jupiter.

The respective influences of the several stars have been observed by the ancients to operate in conformity with the mode pointed out in the foregoing distributions.[41]

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CHAPTER XII

THE ANNUAL SEASONS

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The year comprises four seasons; spring, summer, autumn, and winter; of these, the spring partakes chiefly of moisture, for on the dissipation of cold and recommencement of warmth, an expansion of the fluids takes place: the summer is principally hot, owing to the Sun's nearest approach to the zenith: the autumn is principally dry, because the recent heat has absorbed the moisture: and the winter is chiefly cold, the Sun being then at his farthest distance from the zenith.

The beginning of the whole zodiacal circle (which in its nature as a circle can have no other beginning, nor end, capable of being determined), is therefore assumed to be the sign of Aries, which commences at the vernal equinox:[42] since the moisture of spring forms a primary beginning in the zodiac, analogous to the beginning of all animal life; which, in its first age of existence, abounds principally in moisture: the spring, too, like the first age of animal life, is soft and tender; it is therefore suitably placed as the opening of the year, and is followed by the other seasons in appropriate succession. The summer comes second, and, in its vigour and heat, agrees with the second age of animals; the prime of life, and the period most abounding in heat. Again, the age when the prime of life has passed away, and in which decay prepares to advance, is chiefly abundant in dryness, and corresponds to the autumn. And the final period of old age, hastening to dissolution, is principally cold, like the winter.

CHAPTER XIII

THE INFLUENCE OF THE FOUR ANGLES

The angles are the four cardinal points of the horizon, whence are derived the general names of the winds. With respect to their qualities, it is to be observed that the eastern point, or angle of the [Pg 22]ascendant, is chiefly dry in its nature; because, on the Sun's arrival therein, the damps occasioned by the night begin to be dried up: and all winds

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blowing from that quarter, under the common name of east winds, are arid and free from moisture.

The southern point, or angle of the mid-heaven, is the most hot; because the Sun's meridan position, which produces greater warmth and heat, declines (in this part of the earth) towards the south. The winds, therefore, which blow from that quarter, and are commonly called south winds, are hot and rarefying.

The western point, or occidental angle, is moist; because, when the Sun is there, the moisture, which had been overpowered during the day, recommences its operation: and the winds proceeding from thence, and commonly called west winds, are light and damp.

The northern point, or angle of the lower heaven, is the most cold; for the Sun's meridian position in this part of the earth is far removed from it in declination: and all winds thence proceeding, under the common name of north winds, are cold and frosty.

It will, of course, be seen that a thorough acquaintance with the foregoing matters is essential in order to acquire the faculty of distinguishing temperaments in every shape and variation: since it is sufficiently obvious that the effective influence of the stars must be greatly diversified by the constitutions of the seasons, as well as those of the ages of life, and of the angles; and also that the stars have a much stronger influence on any constitution, when there may not be in it any tendency contrary to their own, as the whole influence is then entire and unalloyed. For example, stars effecting heat operate more vigorously in constitutions of heat; and those effecting moisture in constitutions of moisture. On the other hand, should a tendency, contrary to their own, exist in any constitution, the stars accordingly become less efficacious; in consequence of being attempered and mixed with that contrary tendency: and this happens, for instance, when stars effecting heat are attempered by constitutions of cold, or stars producing moisture by constitutions of dryness. The influence of every star is thus modified by the proportionate admixture presented by constitutions of a nature different from its own.

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In succession to the previous instructions, the following description of the natural and peculiar properties of the signs of the zodiac is annexed: the general temperaments of the signs are analogous to those of the seasons, which are respectively established under each sign, but they have, also, certain peculiar energies, arising from their familiarity with the Sun, the Moon, and the stars, which shall be hereafter specified;—and the simple and unmixed influences existing in the signs, as considered only in themselves and with regard to each other, will be first stated.

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CHAPTER XIV

TROPICAL, EQUINOCTIAL, FIXED,
AND BICORPOREAL SIGNS

Among the twelve signs, some are termed tropical, others equinoctial, others fixed, and others bicorporeal.

The tropical signs are two: viz. the first thirty degrees after the summer solstice, which compose the sign of Cancer; and the first thirty degrees after the winter solstice, composing the sign of Capricorn. These are called *tropical*, because the Sun, after he has arrived at their first points, seems to *turn*, and to change his course towards a contrary latitude;[43] causing summer by the *turn* he makes in Cancer, and winter by that which he makes in Capricorn.

There are also two equinoctial signs: Aries, the first after the vernal equinox; and Libra, the first after the autumnal equinox: they are so called, because the Sun, when in the first point of either, makes the day and night equal.

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Of the remaining eight signs, four are fixed, and four bicorporeal. Those signs, which severally follow immediately after the two tropical and the two equinoctial signs, are termed fixed, because, during the Sun's presence in them, the cold, heat, moisture or dryness, of the season, which commenced on his arrival in the preceding tropical or equinoctial sign, is then more firmly established: not, however, that the temperament of the season has in itself actually increased in vigour, but, having continued for some time in operation, it then renders all things more strongly affected by its influence.

The bicorporeal signs severally follow the fixed signs; and, being thus intermediately placed between the fixed and the tropical signs, they participate in the constitutional properties of both, from their first to their last degrees.

CHAPTER XV

MASCULINE AND FEMININE SIGNS

Again, among the twelve signs, six are called masculine and diurnal, and six feminine and nocturnal. They are arranged in alternate order, one after the other, as the day is followed by the night, and as the male is coupled with the female.

The commencement, it has been already said, belongs to Aries; since the moisture of the spring forms an introduction for the other seasons. And, [Pg 24]as the male sex governs, and the active principle takes precedence of the passive, the signs of Aries and Libra are consequently considered to be masculine and diurnal. These signs describe the equinoctial circle, and from them proceed the principal variation, and most powerful agitation, of all things. The signs immediately following them are feminine and nocturnal; and the rest are consecutively arranged as masculine and feminine, by alternate order.

Masculine or feminine qualities are, however, by some persons, attributed to the signs by means of a different arrangement, and by making the sign ascending (which is also called the horoscope) the first of the masculine signs. They also consider the first tropical sign to be that in which the Moon is posited, because she undergoes more frequent and rapid changes and variations than any other heavenly body; and it is by a similar mode of reasoning that they establish the horoscope as the first masculine sign, on account of its being more immediately under the Sun. Again, certain of these persons likewise allow the alternate arrangement of the signs; while there are, again, others who do not admit it; but, instead thereof, divide the whole zodiac into quadrants, and denominate those between the ascendant and the mid-heaven, and between the western angle and the lower haven, oriental and masculine; and the other two quadrants, occidental and feminine.

There have also been other additional appellations bestowed on the signs, in consequence of their apparent formations and figures: they have been called quadrupedal, terrestrial, imperial, fruitful, and have received various other distinguishing epithets of the same sort; but these distinctions seem too unimportant to be even enumerated here, since their origin is obvious, and since, should they ever be thought serviceable towards the inference of future effects, they may be easily applied without the aid of further instruction.

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CHAPTER XVI

MUTUAL CONFIGURATIONS OF THE SIGNS

There are certain familiarities or connections between different parts of the zodiac; and the chief of these is that which exists between such parts as are configurated with each other.

This mutual configuration attaches to all parts diametrically distant from each other, containing between them two right angles, or six signs, or a hundred and eighty degrees: it also exists in all parts at the triangular distance from each other, containing between them one right angle and a third, or four signs, or a hundred and twenty degrees; also, in all parts at the quadrate distance from each other, containing between them exactly one right angle, or three signs, or ninety degrees; and, also, in all parts at the hexagonal distance from each other, containing between them two-thirds of a right angle, or two [Pg 25]signs, or sixty degrees.[44] These several distances are taken for the following reasons: the distance by diameter, however, is in itself sufficiently clear, and requires no further explanation; but, as to the rest, after the diametrical points have been connected by a straight line, AB; the space of the two right angles, contained on the diameter, is then to be divided into aliquot parts of the two greatest denominations; that is to say, into halves, AFC, CFB, and into thirds, AFD, DFE, EFB: there will then be provided for the third part (AD) a super-proportion (DC), equal to its own half; and for the half (AC) a super-proportion (CE), equal to its own third part; so that the division into two aliquot parts, AC, CB, will make the quartile distance AC; and the division into three aliquot parts, AD, DE, EB, will make the sextile distance AD, and the trinal distance AE. The respective super-proportions (on either side of the intermediate quartile AC, formed by the one right angle AFC), will also again make the quartile AC (if there be added to the sextile, AD, the super-proportion DC, equal to the half of the sextile), and the trine AE (if there be added to the quartile AC the super-proportion CE, equal to the third part of the quartile).

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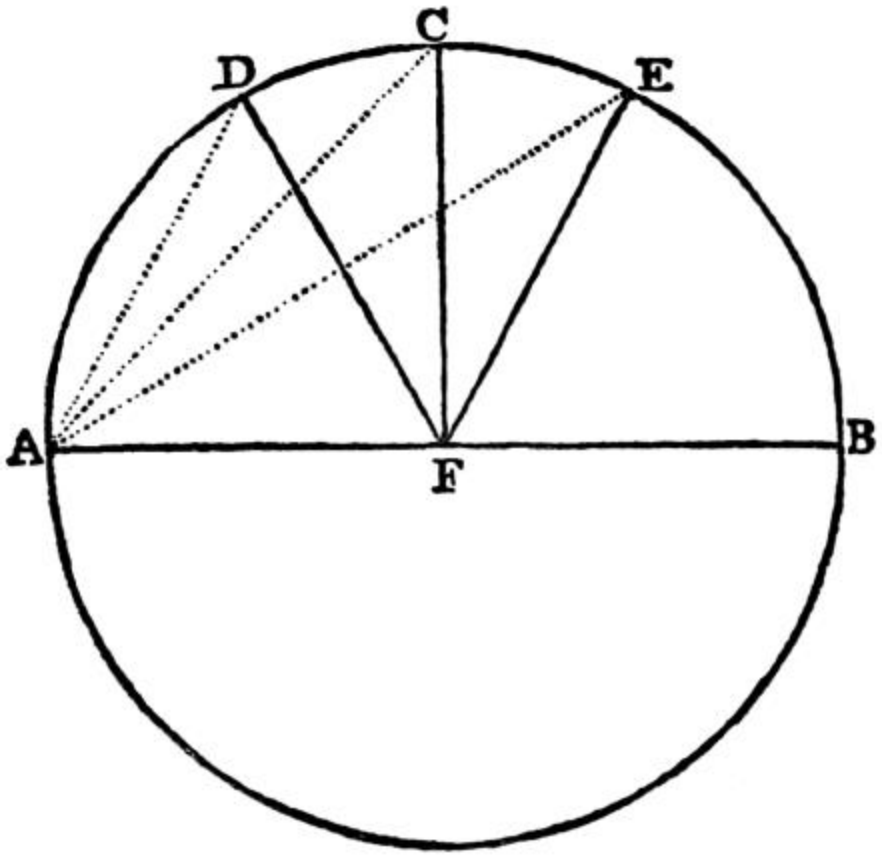

[Pg 26]Of these configurations, the trine and the sextile are each called harmonious, because they are constituted between signs of the same kind; being formed between either all feminine or all masculine signs. The opposition and quartile are considered to be discordant, because they are configurations made between signs not of the same kind, but of different natures and sexes.[45]

CHAPTER XVII

SIGNS COMMANDING AND OBEYING

Any two signs configurated with each other at an equal distance from the same, or from either equinoctial point, are termed commanding and obeying, because the

ascensional and descensional times of the one are equal to those of the other, and both describe equal parallels.

The signs in the summer semicircle are commanding; those in the winter semicircle, obeying: for, when the Sun is present in the former, he makes the day longer than the night; and, when in the latter, he produces the contrary effect.

CHAPTER XVIII

SIGNS BEHOLDING EACH OTHER,
AND OF EQUAL POWER

Any two signs, equally distant from either tropical sign, are equal to each other in power; because the Sun, when present in one, makes day and night, and the divisions of time, respectively equal in duration to those which he produces when present in the other. Such signs are also said to behold each other, as well for the foregoing reasons, as because each of them rises from one and the same part of the horizon, and sets in one and the same part.[46]

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CHAPTER XIX

SIGNS INCONJUNCT

All signs, between which there does not exist any familiarity in any of the modes above specified, are inconjunct and separated.

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For instance, all signs are inconjunct which are neither commanding nor obeying, and not beholding each other nor of equal power, as well as all signs which contain between them the space of one sign only, or the space of five signs, and which do not at all share in any of the four prescribed configurations: viz. the opposition, the trine, the quartile, and the sextile. All parts which are distant from each other in the space of one sign only are considered inconjunct, because they are averted, as it were, from each other; and because, although the said space between them may extend into two signs, the whole only contains an angle equal to that of one sign: all parts distant from each other in the space of five signs are also considered inconjunct, because they divide the whole circle into unequal parts; whereas the spaces contained in the configurations above mentioned, viz. the opposition, trine, quartile, and sextile, produce aliquot divisions.[47]

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CHAPTER XX

HOUSES OF THE PLANETS

Those stars which are denominated planetary orbs have particular familiarity with certain places in the zodiac, by means of parts designated as their houses, and also by their triplicities, exaltations, terms, and so forth.

The nature of their familiarity by houses is as follows:

Cancer and Leo are the most northerly of all the twelve signs; they approach nearer than the other signs to the zenith of this part of the earth, and thereby cause warmth and heat: they are consequently appropriated as houses for the two principal and greater luminaries; Leo for the Sun, as being masculine; and Cancer for the Moon, as being

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feminine. It has hence resulted, that the semicircle from Leo to Capricorn has been ordained solar, and the semicircle from Aquarius to Cancer, lunar; in order that each planet might occupy one sign in each semicircle, and thus have one of its houses configurated with the Sun and the other with the Moon, conformably to the motions of its own sphere, and the peculiar properties of its nature.

Saturn, therefore, since he is cold and inimical to heat, moving also in a superior orbit most remote from the luminaries, occupies the signs opposite to Cancer and Leo: these are Aquarius and Capricorn; and they are assigned to him in consideration of their cold and wintry nature; and because the configuration by opposition does not co-operate towards the production of good.[48]

Jupiter has a favourable temperament, and is situated beneath the sphere of Saturn; he therefore occupies the next two signs, Sagittarius [Pg 29]and Pisces. These signs are airy and fruitful, in consequence of their trinal distance from the houses of the luminaries, which distance harmonises with the operation of good.

Mars is dry in nature, and beneath the sphere of Jupiter: he takes the next two signs, of a nature similar to his own, viz. Aries and Scorpio, whose relative distances from the houses of the luminaries are injurious and discordant.

Venus, possessing a favourable temperament, and placed beneath the sphere of Mars, takes the next two signs, Taurus and Libra. These are of a fruitful nature, and preserve harmony by the sextile distance; and this planet is never more than two signs distant from the Sun.

Mercury never has greater distance from the Sun than the space of one sign, and is beneath all the other planets: hence he is placed nearest to both luminaries, and the remaining two signs, Gemini and Virgo, are allotted to him.[49]

CHAPTER XXI

THE TRIPLICITIES

The familiarity existing by triplicity arises in the following mode:

The triplicity preserves accordance with an equilateral triangle, and the whole zodiacal orbit is defined by three circles, viz. that of the equinox, and those of the two tropics; the twelve signs are, therefore, distributed among four equilateral triangles.

The first triangle, or triplicity, is formed by three masculine signs, Aries, Leo, and Sagittarius, having the Sun, Jupiter, and Mars as lords by house. Mars, however, being contrary in condition to the solar influence, this triplicity receives, as its lords, only Jupiter and the Sun. By day, therefore, the Sun claims the principal co-regency of it, and Jupiter by night. Aries is on the equinoctial circle, Leo on the summer, and Sagittarius on the winter circle. This triplicity is principally northern, owing to the concurrent dominion of Jupiter, who is fruitful and airy, and expressly connected with winds proceeding from the north; it is, however, also north-west, in consequence of [Pg 30]being, in some degree, combined with the west by means of the house of Mars, who introduces western breezes and the feminine qualities of that quarter, in consequence of his lunar condition.[50]

The second triplicity, formed by Taurus, Virgo, and Capricorn, is allotted to the dominion of the Moon and Venus, since it consists of feminine signs. The Moon rules it by night, and Venus by day. Taurus is on the summer circle, Virgo on the equinoctial, and Capricorn on the winter. This triplicity is southern, in consequence of the dominion of Venus, whose warm and moist influence produces south winds: it, however, additionally receives a mixture of the east, by means of Saturn; for, as Capricorn is the house of that planet, and an eastern sign, Saturn becomes effective of winds from that quarter, and furnishes this triplicity with a mixture of the east, with which quarter he is further connected by means of his solar condition.[51]

The third triplicity is composed of Gemini, Libra, and Aquarius, masculine signs. It holds connection with Saturn and Mercury by containing their houses, and is therefore attributed to them, and not to Mars, to which planet it bears no relation. Saturn rules it by day, owing to his condition,[52] and Mercury by night. Gemini is on the summer circle, Libra on the equinoctial, and Aquarius on the winter. This triplicity is principally eastern, by the influence of Saturn; but it becomes north-east by receiving also a mixture of the north from the condition of Jupiter, with which planet Saturn has, in this respect, a diurnal familiarity.[53]

The fourth triplicity, formed by Cancer, Scorpio, and Pisces, is left to the remaining planet, Mars, who has right in it by means of his house, Scorpio. But, as the signs which compose this triplicity are feminine, the Moon by night and Venus by day, through their feminine condition, govern it, together with Mars. Cancer is on the summer circle, Scorpio on the winter, and Pisces on the equinoctial. This triplicity is western, in consequence of the government of the Moon and Mars; but it is also blended with the south by the joint dominion of Venus, and therefore becomes south-west.

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CHAPTER XXII

EXALTATIONS

That which is termed the exaltation of the planets is considered by the following rules:

The Sun on his entrance into Aries is then passing into the higher and more northern semicircle; but, on his entrance into Libra, into the more southern and lower one: his exaltation, therefore, is determined to be in Aries, as, when present in that sign, he

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begins to lengthen the days, and the influence of his heating nature increases at the same time. His fall is placed in Libra, for the converse reasons.

Saturn on the contrary, in order to preserve his station opposite to the Sun, in this respect, as well as in regard to their respective houses, obtains his exaltation in Libra, and his fall in Aries: since, in all cases, the increase of heat must be attended by a diminution of cold, and the increase of cold by a diminution of heat.

The Moon, again, after conjunction with the Sun in Aries, the seat of his exaltation, makes her first appearance, and begins to augment her light in Taurus, the first sign of her own triplicity, which is consequently ascribed to be her exaltation; while Scorpio, the opposite sign, is her fall.

Jupiter, since he is efficacious in exciting fruitful breezes from the north, and since he becomes most northerly, and augments his peculiar influence when in Cancer, accordingly obtains his exaltation in that sign, and his fall in Capricorn.

Mars possesses a fiery nature, which receives its greatest intensity in Capricorn, in which sign this planet becomes most southerly; his exaltation is therefore placed in Capricorn, in opposition to that of Jupiter, and his fall in Cancer.

Venus is of a moist nature, and becomes chiefly moist when in Pisces. Under that sign a dampness begins to be perceptible in the atmosphere, and Venus, from being in that sign, derives an augmentation of her own proper influence: her exaltation is consequently placed therein, and her fall in Virgo.

Mercury is of a nature opposite to that of Venus, and is more dry: in opposition to her, therefore, he takes his exaltation in Virgo, in which sign the autumnal dryness makes its first appearance; and he receives his fall in Pisces.

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CHAPTER XXIII

THE DISPOSITION OF THE TERMS[54]

There are two methods of disposing the terms of the planets, in reference to the dominion of the triplicities; one is Ægyptian, the other Chaldaic.

But the Ægyptian method preserves no regular distribution, neither in point of successive order nor in point of quantity.

In point of order it is defective, since it, in some instances, allots the first degrees of a sign to the lord of the house, in others to the lord of the triplicity, and in others again to the lord of the exaltation. By selecting examples this failure in order will easily be seen; for instance, if the order were regulated by the government of houses, for what reason should Saturn take the first degrees in Libra, since that sign is the house of Venus? or why should Jupiter take them in Aries, which is the house of Mars? If the government of triplicities were followed, for what reason should Mercury take the first degrees in Capricorn, which is in the triplicity ruled by Venus? If the government by exaltations, why should Mars take the first degrees in Cancer? that sign being the exaltation of Jupiter. And if the order were regulated even by considering the planet which possesses most of these dignities in the sign, for what reason should Mercury take the first degrees in Aquarius, in which sign he rules only by triplicity, and why not Saturn, who has government in it by house, as well as by triplicity? or why in short should Mercury, who does not possess any kind of dominion in Capricorn, receive the first degrees in that sign also? The same want of order is abundantly evident in the rest of the distribution.

An equal irregularity exists in the respective quantities of degrees allotted by the Ægyptians to the several terms of the planets. For it is by no means a proper nor sufficient demonstration of accuracy that the aggregate sum of all the numbers of every

single planet amounts to the precise total requiring to be divided into portions of time;[55] since, even if it be admitted that this total, collected from every single star, is correctly asserted by the Ægyptians, it may still be objected that the same total, so collected by them, may be found in [Pg 33]many other ways by interchanging the numbers in a sign. There are persons also who contend that in every latitude the same space of time is occupied in ascension by every star; this, however, is manifestly wrong: for, in the first place, these persons are guided by the vulgar opinion of the plane heights of ascension, which is totally foreign to truth, and according to which, in the parallel of Lower Ægypt, the signs of Virgo and Libra would ascend each in thirty-eight degrees and a third,[56] and Leo and Scorpio each in thirty-five degrees; when it is, on the contrary, shown by the Tables,[57] that the latter two signs occupy in their several ascensions more than thirty-five degrees each, but Virgo and Libra less. It should further be observed, that those who support this opinion seem (by so doing) not only to dispute the quantity of the terms most generally received, but to be driven also to the necessity of falsifying many points; since (as it is indispensable to keep to the same total amount of all the terms together) they make use of parts of degrees; but even that contrivance does not enable them to reach the true point.

The old terms, admitted by many persons on the authority of former tradition, are as follows:

THE TERMS ACCORDING TO THE ÆGYPTIANS

Aries			Taurus			Gemini			Cancer			Leo			Virgo		
Jupiter	6	6	Ven.	8	8	Mer.	6	6	Mars	7	7	Jup.	6	6	Mer.	7	7
Venus	6	12	Mer.	6	14	Jup.	6	12	Ven.	6	13	Ven.	5	11	Ven.	10	17

Aries			Taurus			Gemini			Cancer			Leo			Virgo		
Mercury	8	20	Jup.	8	22	Ven.	5	17	Mer.	6	19	Sat.	7	18	Jup.	4	21
Mars	5	25	Sat.	5	27	Mars	7	24	Jup.	7	26	Mer.	6	24	Mars	7	28
Saturn	5	30	Mars	3	30	Sat.	6	30	Sat.	4	30	Mars	6	30	Sat.	2	30
Libra			**Scorpio**			**Sagittarius**			**Capricorn**			**Aquarius**			**Pisces**		
Saturn	6	6	Mars	7	7	Jup.	12	12	Mer.	7	7	Mer.	7	7	Ven.	12	12
Mercury	8	14	Ven.	4	11	Ven.	5	17	Jup.	7	14	Ven.	6	13	Jup.	4	16
Jupiter	7	21	Mer.	8	19	Mer.	4	21	Ven.	8	22	Jup.	7	20	Mer.	3	19
Venus	7	28	Jup.	5	24	Sat.	5	26	Sat.	4	26	Mars	5	25	Mars	9	28
Mars	2	30	Sat.	6	30	Mars	4	30	Mars	4	30	Sat.	5	30	Sat.	2	30

[Pg 34]Thus, by the *Æ*gyptian distribution, it appears that the total numbers of the degrees for each planet, added together, make 360:—viz. for Saturn 57, Jupiter 79, Mars 66, Venus 82, and Mercury 76.

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The method of the Chaldæans contains a certain simplicity of arrangement as to quantity, and preserves an order of succession rather more comformable to the dominion of the triplicities. It is, nevertheless, highly imperfect, as may be easily discovered even without being pointed out: for in the first triplicity (which the Chaldæans also attribute to the same signs; viz. Aries, Leo, and Sagittarius), Jupiter, the lord of the triplicity, takes the first degrees; Venus, who rules the next triplicity, follows him; after her, in succession, are Saturn and Mercury, the lords of the triplicity of Gemini; and lastly Mars, lord of the remaining triplicity. In the second triplicity (also allotted to the same signs, viz. Taurus, Virgo, and Capricorn), Venus stands first; next to her, Saturn and Mercury; after them Mars, and Jupiter last. In the other two triplicities a similar order of succession is closely followed; and with respect to the third triplicity, which is ascribed to two lords, viz. to Saturn and Mercury, Saturn is placed first in order by day and Mercury by night.

The quantity of degrees allotted to each planet is also simply regulated in the Chaldaic method; it diminishes in graduation from the quantity given to the planet first in order, so that each successive planet takes one degree less than that which preceded it. Thus the first planet takes eight degrees, the second seven, the third six, the fourth five, and the fifth four. By this arrangement the degrees of Saturn amount by day to 78, and by night to 66; the degrees of Jupiter to 72, of Mars to 69, of Venus to 75, and of Mercury by day to 66, and by night to 78—the whole amounting to 360.

Of these two distributions of the terms, that of the Ægyptians seems more to be relied on than the other; since it has been handed down and recommended in the writings of the Ægyptian authors, and also because the degrees of the terms, in nativities rectified by them as examples, are universally in accordance with this distribution; while, on the other hand, neither the order nor the number of the Chaldaic method has ever been recorded or explained by any writer—not even by the writers of that very

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nation: the accuracy of that method is consequently doubtful, and its irregularity as to the order of placing the planets is widely open to censure.

There is, however, an ancient writing which has fallen into the author's possession, and which gives a rational and consistent account of the nature of the terms; of the order in which they are to be taken, and of the quantity belonging to each. It will be found in the subsequent chapter.

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CHAPTER XXIV

THE TERMS ACCORDING TO PTOLEMY

In arranging the order in which the planets take their terms in each sign, their exaltations, triplicities, and houses, are taken into consideration; and whatever planet, whether benefic or malefic, may possess two rights of dominion in one and the same sign, such planet is universally placed first in order in that sign. In other cases, however, where it does not happen that a malefic possesses two rights of dominion in the sign, it is always placed last.

The lord of the exaltation is placed first; then the lord of the triplicity; and then the lord of the house; in regular succession, according to the series of the signs; but it must again be remembered that any planet, having two rights of dominion in the same sign, takes precedence, as before mentioned, of those having only one. In Cancer and Leo, however, the malefics occupy the first degrees; as those signs are the houses of the Moon and the Sun, which take no terms; and the malefics being found to have greater potency in those signs therefore take precedence in them. Mars, consequently, receives

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the first degrees in Cancer, and Saturn in Leo, by which arrangement a proper order is preserved.[58]

The respective quantities of degrees for the several terms is thus determined: viz. when there is no planet found to be lord by two rights in the same sign, or in the two signs next following, each of the benefics, Jupiter and Venus, takes seven degrees; the malefics, Saturn and Mars, take five degrees each; and Mercury, being of common influence, takes six degrees; thus completing the whole thirty. Since, however, there are some cases in which a planet has always a double right—(for Venus obtains the sole government of Taurus and Pisces, as the Moon does not share in the terms)—it is to be observed that when such double right (whether it exist in the same sign or in the signs next following as far as may complete a quadrant) may be possessed by any planet, that planet receives in addition one degree. The planets thus entitled were distinguished by points in the ancient writing above mentioned. And the degree, added to the quantity of the planet which exercises a double right, is subtracted from those of single right; most generally from Saturn and Jupiter, in consequence of their slower motion.[Pg 36]

These terms are detailed in the following table:—

Aries			**Taurus**			**Gemini**			**Cancer**			**Leo**			**Virgo**		
Jupiter	6	6	Ven.	8	8	Mer.	7	7	Mars	6	6	Jup. Sat.	6	6	Mer.	7	7
Venus	8	14	Mer.	7	15	Jup.	6	13	Mer. Jup.	7	13	Mer.	7	13	Ven.	6	13
Mercury	7	21	Jup.	7	22	Ven.	7	20	Jup. Mer.	7	20	Sat. Ven.	6	19	Jup.	5	18

Aries			Taurus			Gemini			Cancer			Leo			Virgo		
Mars	5	26	Sat.	2 4	4 26	Mars	6	26	Ven.	7	27	Jup.	6	25	Sat.	6	24
Saturn	4	30	Mars	6 4	30	Sat.	4	30	Sat.	3	30	Mars	5	30	Mars	6	30
Libra			**Scorpio**			**Sagittarius**			**Capricorn**			**Aquarius**			**Pisces**		
Saturn	6	6	Mars	6	6	Jup.	8	8	Ven.	6	6	Sat.	6	6	Ven.	8	8
Venus	5	11	Ven. Jup.	8 7	14 13	Ven.	6	14	Mer.	6	12	Mer.	6	12	Jup.	6	14
Mercury Jupiter	8 5	19 16	Jup. Ven.	7 8	21	Mer.	5	19	Jup.	7	19	Ven.	8	20	Mer.	6	20
Jupiter Mercury	5 8	24	Mer.	6	27	Sat.	6	25	Sat. Mars	6 5	25 25	Jup.	5	25	Mars	6	26
Mars	6	30	Sat.	3	30	Mars	5	30	Mars Sat.	5	30	Mars	5	30	Sat.	4 3	30

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CHAPTER XXV

THE PLACES AND DEGREES OF EVERY PLANET

The signs have been subdivided by some persons into parts still more minute, which have been named places and degrees of dominion. Thus the twelfth part of a sign, or two degrees and a half, has been called a place, and the dominion of it given to the signs next succeeding. Other persons again, pursuing various modes of arrangement, attribute to each planet certain degrees, as being aboriginally connected with it, in a manner somewhat similar to the Chaldaic arrangement of the terms. But all these imaginary attributes cannot be herein detailed, for they [Pg 37]receive no confirmation from nature, are not capable of being rationally demonstrated, and are, in fact, merely the offspring of scientific vanity.

The following observation, however, deserves attention, and must not be omitted.

The beginnings of the signs, and likewise those of the terms, are to be taken from the equinoctial and tropical points. This rule is not only clearly stated by writers on the subject, but is also especially evident by the demonstration constantly afforded, that their natures, influences and familiarities have no other origin than from the tropics and equinoxes, as has been already plainly shown.[59] And, if other beginnings were allowed, it would either be necessary to exclude the natures of the signs from the theory of prognostication, or impossible to avoid error in then retaining and making use of them; as the regularity of their spaces and distances, upon which their influence depends, would then be invaded and broken in upon.

CHAPTER XXVI

FACES, CHARIOTS, AND OTHER SIMILAR
ATTRIBUTES OF THE PLANETS

The familiarities existing between the planets and the signs are such as have been already particularised.

There are also, however, further peculiarities ascribed to the planets. Each is said to be in its proper face, when the aspect it holds to the Sun, or Moon, is similar to that which its own house bears to their houses: for example, Venus is in her proper face when making a sextile aspect to either luminary, provided she be occidental to the Sun, but oriental to the Moon, agreeably to the primary arrangement of her houses.[60]

Each planet is also said to be in its proper chariot, or throne, or otherwise triumphantly situated, when it holds familiarity with the place which it actually occupies by two, or more, of the prescribed modes of connection: for when it is so circumstanced, its influence and energy are specially augmented by the familiarity it thus holds with the sign which encompasses it, and which is similar in influence and co-operates with it.

Lastly, each planet (although it may possess no familiarity with the sign encompassing it) is said to rejoice, when any connection subsists between itself and other stars of the same condition; as, notwithstanding the distance between them, a certain sympathy and [Pg 38]communication of influence is derived from their mutual resemblance. In the same manner, again, when a planet occupies a place adverse and dissimilar in condition to itself, much of its influence is dissipated and lost; in consequence of the interposition and admixture of the other different influence, arising out of the dissimilar temperament of the sign by which it is encompassed.

CHAPTER XXVII

APPLICATION, SEPARATION, AND OTHER FACULTIES

In all cases when the distances between planets or luminaries are but trifling,[61] the planet which precedes is said to apply to that which follows; and that which follows to be separating from that which precedes.[62] The same rule obtains both in respect to bodily conjunction and to any other of the aspects before described; except that, in the application and separation of the bodily conjunction, it is also essential to observe the actual latitudes of the bodies, in order to receive and consider only such a transit as may be made in the same parts of the zodiac.[63] But in the application and separation of aspects merely, the same attention is not requisite, since all the rays are uniformly converged into one focus, that is to say, into the angle of the earth,[64] and meet there alike from every quarter.[Pg 39]

It appears, therefore, by the whole of what has been already delivered, that the effective influence of the stars must be considered as arising not only from their own peculiar natures and properties, but also from the quality of the surrounding signs, and from configuration with the Sun and the angles; all which has been pointed out. The influence of each planet, however, is strengthened chiefly when it may be oriental, swift and direct in its proper course and motion—for it has then its greatest power: but, on the other hand, it loses strength when occidental and slow in motion or retrograde; as it then acts with smaller effect.[65] Its influence also receives accession or diminution, from its position with regard to the horizon; as, if it be situated in the mid-heaven, or succedent to the mid-heaven, it is especially strong; likewise, if it be on the actual horizon, or succedent to the horizon, it is also powerful—particularly if in the eastern quarter. Should it, however, be below the earth, and configurated with the ascendant, either from the lower heaven, or from any other part below the earth, its influence then becomes more languid; but if, when below the earth, it hold no such configuration, it is entirely deprived of efficacy.[66]

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BOOK THE SECOND

CHAPTER I

GENERAL DIVISION OF THE SUBJECT

The great and leading points, requiring to be attended to as a necessary means of introduction to the consideration of particular predictions, having been succinctly defined, the further parts of the subject, comprehending everything which may tend to facilitate prediction, and render it complete, shall now be duly proceeded in; and, at the same time, care shall be taken to confine the whole doctrine within the limits of natural reason.

The foreknowledge to be acquired by means of Astrology is to be regarded in two great and principal divisions. The first, which may be properly called General, or Universal, concerns entire nations, countries, or cities; and the second, denominated Particular, or Genethliacal, relates to men individually.

In considering these respective divisions, it seems proper to give priority to that which has the more general application and influence: because, in the first place, general events are produced by causes greater and more compulsatory than the causes of particular events; secondly, because natures of more extended potency must invariably control those which are more limited in action; and, thirdly, because particular events, or individual affections, are comprehended in those of general influence.[67] It is therefore especially necessary, in desiring to investigate particular events, to treat first of those which are general.

Again, general events are subdivided according to their operation upon entire countries, and upon certain cities or districts: one sub-division being regarded as affecting entire countries, and the other certain cities or districts only. They are also separately considered according to the causes by which they are produced; war, pestilence, famine, earthquakes, inundations, and other similar visitations being dependent on such greater and more important causes, as arise only after considerable periods; while slighter causes, arising more frequently, have reference only to the revolution of the seasons; their greater or less variation in cold and heat; the severity or mildness of the weather; the occasional abundance or scarcity of provisions; and other like occurrences.[Pg 41]

Hence the consideration of those events which concern whole countries, and are dependent on the greater causes (since it has a more extended scope than the other, which attaches only to certain cities, or districts, and is subject to slighter causes) takes precedence. And, for its due investigation, two essential points are to be attended to: the first is, the appropriate familiarity of the zodiacal signs and the fixed stars with the several regions which may be concerned; and the second comprises the indications occasionally arising in those parts of the heavens where such familiarity is found: for instance, the eclipses of the Sun and Moon, and such transits as may be made by the planets, when matutine, and in their respective stations.

The nature of the sympathy between these things must, however, be explained first; and a brief description will therefore be given of the chief peculiarities observable in whole nations; in regard to their manners and customs, as well as to their bodily formation and temperament; considered agreeably to their familiarity with those stars and signs whence the natural cause of their peculiarities duly proceeds.

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CHAPTER II

PECULIARITIES OBSERVABLE THROUGHOUT
EVERY ENTIRE CLIMATE

The peculiarities of all nations are distinguished according to entire parallels and entire angles, and by their situation with regard to the Sun and the Ecliptic.

The climate which we inhabit is situated in one of the Northern Quadrants: but other nations, which lie under more southern parallels, that is to say, in the space between the equinoctial line and the summer tropic, have the Sun in their zenith, and are continually scorched by it. They are consequently black in complexion, and have thick and curled hair. They are, moreover, ugly in person, of contracted stature, hot in disposition, and fierce in manners, in consequence of the incessant heats to which they are exposed; and they are called by the common name of Æthiopians. But the human race does not alone afford evidence of the violent heat in these regions; it is shown also by all other animals and by the state of the surrounding atmosphere.

The natives of those countries which lie under the more remote northern parallels (that is to say, under the Arctic circle and beyond it[68]) have their zenith far distant from the zodiac and the Sun's heat. Their constitutions, therefore, abound in cold, and are also highly imbued with moisture, which is in itself a most nutritive quality, and, in these latitudes, is not exhausted by heat: hence they are fair in complexion, with straight hair, of large bodies and full stature. They are cold in disposition, and wild in manners, owing to the constant cold. The state of the surrounding atmosphere and of animals and [Pg 42]plants, corresponds with that of men; who (as natives of these countries) are designated by the general name of Scythians.

The nations situated between the summer tropic and the Arctic circle, having the meridian Sun neither in their zenith nor yet far remote from it, enjoy a well-temperated atmosphere. This favourable temperature, however, still undergoes variation, and

changes alternatively from heat to cold; but the variation is never vast nor violent. The people who enjoy this kindly atmosphere are consequently of proportionate stature and complexion, and of good natural disposition: they live not in a state of dispersion, but dwell together in societies, and are civilised in their habits. Among the nations comprehended in this division, those verging towards the south are more industrious and ingenious than the others, and more adapted to the sciences: and these qualifications are engendered in them by the vicinity of the zodiac to their zenith, and by the familiarity thus subsisting between them and the planets moving in the zodiac, which familiarly gives activity and an intellectual impulse to their minds. Again, the natives of those countries which lie towards the east excel in courage, acting boldly and openly under all circumstances; for in all their characteristics they are principally conformed to the Sun's nature, which is oriental, diurnal, masculine and dexter—(and it is plainly apparent that the dexter parts of all animals are much stronger than others)—hence results the greater courage of the inhabitants of the East. And as the Moon, on her first appearance after conjunction, is always seen in the west, the western parts are therefore lunar, and consequently feminine and sinister; whence it follows that the inhabitants of the west are milder, more effeminate and reserved.

Thus, in all countries, certain respective peculiarities exist in regard to manners, customs and laws; and in each it is found that some portion of the inhabitants differs partially and individually from the usual habits and condition of their race. These variations arise similarly to the variations perceptible in the condition of the atmosphere; as, in all countries, the general state of whose atmosphere may be either hot, or cold, or temperate, certain districts are found to possess a particular temperature of their own, and to be more or less hot, or cold, by being more or less elevated than the general face of the country. So, likewise, certain people become navigators owing to their proximity to the sea, while others are equestrian, because their country is a plain; and others, again, become domiciliated by the fertility of their soil.

And thus, in each particular climate, certain peculiar qualities are to be found, arising from the natural familiarity which it holds with the stars and the twelve signs. And although these qualities do not pervade it, in such a manner as to be necessarily exhibited by every individual native, yet they are so far generally distributed as to be of much utility in investigating particular events; and it is highly important to take at least a brief notice of them.

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CHAPTER III

THE FAMILIARITY OF THE REGIONS OF THE EARTH
WITH THE TRIPLICITIES AND THE PLANETS

It has been already stated that there are four triplicities distinguishable in the zodiac. The first, composed of Aries, Leo, and Sagittarius, is the north-west triplicity; and Jupiter has chief dominion over it on behalf of its northern proportion; but Mars also rules with him in reference to the west. The second, consisting of Taurus, Virgo, and Capricorn, is the south-east; and in this triplicity Venus bears chief rule, in consequence of the southern proportion; but Saturn also governs with her in consideration of the east. The third, composed of Gemini, Libra, and Aquarius, is north-east; and Saturn is here the principal lord, in consequence of the eastern proportion; Jupiter, however, governs with him in reference to the north. The fourth triplicity is constituted of Cancer, Scorpio, and Pisces, and is south-west; it owns Mars as its principal ruler, in consideration of its western proportion; and, on behalf of the south, it is also governed by Venus.

The four triplicities being thus established, the whole inhabited earth is accordingly divided into four parts, agreeing with the number of the triplicities. It is divided latitudinally by the line of the Mediterranean Sea, from the Straits of Hercules to the

Issican Gulf, continued onwards through the mountainous ridge extending towards the east; and by this latitudinal division its southern and northern parts are defined. Its longitudinal division is made by the line of the Arabian Gulf, the Ægean Sea, Pontus, and the lake Mæotis; and by this line are separated its eastern and western parts.

Of the four quadrants of the earth, thus agreeing in number with the four triplicities, one is situated in the north-west of the entire earth, and contains Celto-galatia; or, as it is commonly called, Europe. Opposed to this quadrant lies that of the south-east, towards Eastern Æthiopia; it is called the southern part of Asia Magna. Another quadrant of the entire earth is in the north-east, about Scythia, and is called the northern part of Asia Magna. To this is opposed the quadrant of the south-west, which lies about Western Æthiopia, and is known by the general name of Libya.

Each of these quadrants contains certain parts, which, in comparison with its other parts, lie more contiguous to the middle of the earth; and these parts, in respect of the quadrant to which they belong, have a situation opposite to the rest of that quadrant, in the same manner as that quadrant itself is situated in regard to the rest of the earth. For instance, in the quadrant of Europe, which is situated on the north-west of the whole earth, those parts of it which lie towards the middle of the earth, and near the angles of the other quadrants, are [Pg 44]manifestly situated in the south-east of that quadrant. The like rule obtains in regard to the other quadrants. And hence it is evident that each quadrant is in familiarity with two oppositely-placed triplicities, its whole extent being adapted to the one triplicity which governs it as an entire quadrant; but its particular parts, situated about the middle of the earth, and lying, as regards the rest of the quadrant, in a direction contrary to that assigned to the whole quadrant altogether, being adapted to the other triplicity which rules the particular quadrant lying opposite to it. The planets exercising dominion in both these triplicities also hold familiarity with these particular parts; but, with the other more remote parts of any quadrant, only those planets hold familiarity which rule in the single triplicity to which the whole quadrant

is allotted. With the said particular parts about the middle of the earth, Mercury also, as well as the other planets in dominion, bears familiarity, in consideration of his meditative condition and common nature.

Under this arrangement, it follows that the north-western parts of the first quadrant, or that of Europe, are in familiarity with the north-west triplicity, composed of Aries, Leo, and Sagittarius; and they are accordingly governed by the lords of that triplicity, Jupiter and Mars, vespertine. These parts, as distinguished by their appropriation to entire nations, are Britain, Galatia, Germany, Barsania,[69] Italy, Apulia, Sicily, Gaul, Tuscany, Celtica, and Spain. And, since the triplicity itself and the planets connected with it in dominion are adapted to command, the natives of these countries are consequently impatient of restraint, lovers of freedom, warlike, industrious, imperious, cleanly, and high-minded. But, owing to the vespertine configuration of Jupiter and Mars, as well as the masculine condition of the anterior parts of the triplicity, and the feminine condition of its latter parts,[70] the said nations regard women with scorn and indifference.[71] They are, however, still careful of the community, brave and faithful, affectionate in their families, and perform good and kind actions.

Among the countries before named, Britain, Galatia, Germany, and Barsania have a greater share of familiarity with Aries and Mars; and their inhabitants are accordingly wilder, bolder, and more ferocious. Italy, Apulia, Sicily, and Gaul are in familiarity with Leo and the Sun; [Pg 45]and the natives of these countries are more imperious, yet kind and benevolent, and careful of the commonwealth. Tuscany, Celtica, and Spain, are connected with Sagittarius and Jupiter; and their inhabitants are lovers of freedom, simplicity, and elegance.

The south-eastern parts of this quadrant, which are situated towards the middle of the earth, viz. Thrace, Macedonia, Illyria, Hellas, Achaia, and Crete, as well as the Cyclad Isles and the shores of Asia Minor and of Cyprus, assume, in addition, a connection with the south-east triplicity, which is composed of Taurus, Virgo, and

Capricorn, and ruled by Venus and Saturn; and, in consequence of the vicinity of these regions to the middle of the earth, Mercury likewise has a proportionate dominion over them. Hence their inhabitants, being subjected to the rulers of both triplicities, enjoy a favourable temperament of mind and of body. From Mars they imbibe their fitness for command, their courage, and impatience of restraint; from Jupiter their love of freedom, their self-rule, their skill in guiding public affairs, and in legislation: through the influence of Venus they are also lovers of the arts and sciences, as well as of music and poetry, of public shows, and all the refinements of life; and from Mercury they deduce their hospitality, their fondness for society and communion, their love of equity and of literature, and their power of eloquence. They are also in the highest degree conversant with sacred mysteries, owing to the vespertine figuration of Venus.

It is further to be observed of these last-named countries, that the inhabitants of the Cyclad Isles, and of the shores of Asia Minor and of Cyprus, are more particularly under the influence of Taurus and Venus, and are therefore voluptuous, fond of elegance, and over-studious in their attention to the body. The people of Hellas, Achaia, and Crete, have a stronger familiarity with Virgo and Mercury, and are therefore learned and scientific, preferring the cultivation of the mind to the care of the body. The people of Macedonia, Thrace, and Illyria, are chiefly influenced by Capricorn and Saturn; whence they are greedy of wealth, inferior in civilization, and have no ordinances of civil polity.

The second quadrant consists of the southern division of Asia Magna. Such of its parts as are contained in India, Arriana, Gedrosia, Parthia, Media, Persia, Babylonia, Mesopotamia, and Assyria, are situated in the south-east of the whole earth, and have due familiarity with the south-east triplicity (composed of Taurus, Virgo, and Capricorn), and consequently with Venus, Mercury, and Saturn, in matutine figuration. The nature of the inhabitants of these countries is obedient to the dominion of these ruling influences; they worship Venus under the name of Isis; and they also pay devotion to Saturn, invoking him by the name of Mithranhelios. Many of them likewise

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foretell future events; and they consecrate to the gods some of their bodily members, to which superstition they are induced by the nature of [Pg 46]the figuration of the planets before mentioned.[72] They are, moreover, hot in constitution, amorous and lustful, fond of acting, singing, and dancing, gaudy in their dresses and ornaments; owing to the influence of Venus. Saturn, however, inclines them to simplicity of conduct; and, in consequence of the matutine figuration, they address their women publicly.[73] There are also many among them who beget children by their own mothers.[74] The matutine figurations also influence their mode of worship, which is performed by prostration of the breast; because the heart is the nobler part of the body, and, in its vivifying faculties, acts like the Sun. And, although the influence of Venus makes the people, generally speaking, finical and effeminate in their personal adornment and apparel, yet the connection which Saturn holds with them, by means of the east, still renders them great in mind, eminent in council, courageous and warlike.

It is to be remarked, that Parthia, Media, and Persia, have a more particular familiarity with Taurus and Venus; whence it follows that the dwellers in those countries wear splendid garments, and clothe the whole person entirely, except the breast; they are also fond of elegance and refinement. The countries about Babylon, Mesopotamia, and Assyria, are connected with Virgo and Mercury; their inhabitants are consequently studious of the sciences, and, among other attainments, excel in making observations on the five planets. India, Arriana, and Gedrosia, are connected with Capricorn and Saturn; the natives of these regions are, therefore, ill-formed in person, of dirty habits, and barbarous manners.

The remaining parts of this second quadrant, viz. Idumæa, Cœlesyria, Judæa, Phœnicia, Chaldæa, Orchynia, and Arabia Felix, occupy a situation in the vicinity of the middle of the earth, and in the north-west of the quadrant to which they actually belong: hence they are in familiarity with the north-west triplicity (which consists of Aries, Leo, and Sagittarius), and they have for their rulers, Jupiter and Mars, together

with Mercury. By means of the figuration of these planets, the natives of the said countries are skilful in trade and all mercantile affairs, heedless of danger, yet treacherous, servile, and thoroughly fickle.

The inhabitants of Cœlesyria, Idumæa, and Judæa, are principally influenced by Aries and Mars, and are generally audacious, [Pg 47]atheistical,[75] and treacherous. The Phœnicians, Chaldæans, and Orchynians, have familiarity with Leo and the Sun, and are therefore more simple and humane in disposition; they are also studious of astrology, and pay greater reverence than all other nations to the Sun. The people of Arabia Felix are connected with Sagittarius and Jupiter: the country is fertile, and abundantly productive of spices, and its inhabitants are well-proportioned in person, free in all their habits of life, and liberal in all their contracts and dealings.

The third quadrant occupies the northern division of Asia Magna. Those several parts of it which lie to the north-east of the whole earth, and comprise Hyrcania, Armenia, Mantiana, Bactriana, Casperia, Serica, Sauromatica, Oxiana, and Sogdiana, are in familiarity with the north-east triplicity, composed of Gemini, Libra, and Aquarius, and have for their rulers Saturn and Jupiter, in matutine positions; hence the inhabitants worship Jupiter and the Sun.[76] They are abundantly rich in all things: they possess much gold, and are dainty and luxurious in their diet. They are also learned in theology, skilled in magic, just in all their dealings, free and noble-minded, holding dishonesty and wickedness in abhorrence, strongly imbued with the softer affections of nature; and, in a worthy cause, they will even readily embrace death to preserve their friends. They are, furthermore, chaste in marriage, elegant and splendid in their dress, charitable and beneficent, and of enlightened intellect. All these qualities are principally produced by the matutine positions of Saturn and Jupiter, who influence the region.

Among these nations, however, Hyrcania, Armenia, and Mantiana, have a greater familiarity with Gemini and Mercury; and the inhabitants are consequently more acute in apprehension, but less tenacious of their probity. The countries about Bactriana,

Casperia, and Serica, are connected with Libra and Venus; and the natives are endowed with much wealth and many luxuries, and take delight in poetry and songs. The nations about Sauromatica, Oxiana and Sogdiana, are influenced by Aquarius and Saturn; and are therefore less polished in manners, and more austere and uncouth.

The other parts of this quadrant, lying near the middle of the entire earth, consist of Bithynia, Phrygia, Colchis, Laxica, Syria, Commagene, Cappadocia, Lydia, Lycia, Cilicia, and Pamphylia. These, being situated in the south-west of their quadrant, have familiarity accordingly with the south-west triplicity, composed of Cancer, Scorpio, and Pisces, and [Pg 48]are ruled by Mars and Venus, together with Mercury. In these countries Venus is principally worshipped; she is invoked as the Mother of the Gods, and by various local and indigenous appellations; Mars likewise receives adoration here, under the name of Adonis, as well as by other titles;[77] and some of the religious services to these deities are performed by loud lamentations. The people are servile in mind, diligent in labour, yet fraudulent, knavish, and thievish; they enter into foreign armies for the sake of hire, and make prisoners and slaves of their own countrymen: besides which, they are continually subject to intestine broils. These traits arise from the matutine figurations of Mars and Venus. It is further to be observed, that, from the circumstance of Mars receiving his exaltation in Capricorn (one of the signs of the triplicity ruled by Venus), and Venus hers in Pisces (a sign belonging to the triplicity of Mars), it thence follows that the women have strong attachments and kindly affections to their husbands, are vigilant and careful in domestic affairs, and highly industrious: they also act as servants, and labour for the men, with all due obedience, in every thing.

Bithynia, Phrygia, and Colchis, must however be excepted from sharing in this general propriety of the female character; for, as these nations are chiefly connected with Cancer and the Moon, their male population is, generally speaking, slavish in its habits, timid and superstitious, while the greater part of the women, owing to the

matutine and masculine position of the Moon, are of masculine manners, ambitious of command, and warlike. These females, like the Amazons, shun the addresses of men, and delight in the use of arms, and in manly occupations: they also amputate the right breasts of their female children for the sake of adapting them to military service, and in order that, when in combat and exposing that part of their body, they may appear to be of the male sex. Again, Syria, Commagene, and Cappadocia, are principally influenced by Scorpio and Mars; and their inhabitants are accordingly bold, wicked, treacherous, and laborious. Lydia, Cilicia, and Pamphylia, have a greater familiarity with Pisces and Jupiter; when their inhabitants are wealthy, of mercantile habits, living in freedom and in community, faithful to their engagements, and honest in their dealings.

The remaining quadrant is the vast tract known by the general name of Libya. Its several parts, distinguished by the particular names of Numidia, Carthage, Africa,[78] Phazania, Nasamonitis, Garamantica, [Pg 49]Mauritania, Getulia, and Metagonitis, are situated in the south-west of the entire earth, and have due familiarity with the south-west triplicity, composed of Cancer, Scorpio, and Pisces; their rulers therefore are Mars and Venus, in vespertine position. From this figuration of the planets it results that the dwellers in these regions are doubly governed by a man and a woman, who are both children of the same mother; the man rules the males, and the woman the females. They are extremely hot in constitution, and desirous of women; their marriages are usually made by violence, and in many districts the local princes first enjoy the brides of their subjects: in some places, however, the women are common to all. The influence of Venus causes the whole people to delight in personal ornaments, and in being arrayed in female attire: nevertheless, that of Mars renders them courageous, crafty, addicted to magic, and fearless of dangers.

Again, however, of the above-named countries, Numidia, Carthage, and Africa, are more particularly in familiarity with Cancer and the Moon: their inhabitants, consequently, live in community, attend to mercantile pursuits, and enjoy abundantly

all the blessings of nature. The natives of Metagonitis, Mauritania, and Getulia, are influenced by Scorpio and Mars, and are consequently ferocious and pugnacious in the highest degree; eaters of human flesh, utterly indifferent to danger, and so regardless and prodigal of blood, as to slay each other without hesitation on the slightest cause. The people in Phazania, Nasamonitis, and Garamantica, are connected with Pisces and Jupiter, and are accordingly frank and simple in manners, fond of employment, well disposed, fond of the decencies of life, and, for the most part, free and unrestrained in their actions: they worship Jupiter by the name of Ammon.

The other parts of this quadrant, which lies near the middle of the entire earth, are Cyrenaica, Marmarica, Ægypt, Thebais, Oasis, Troglodytica, Arabia, Azania, and Middle Æthiopia. These countries, being situated in the north-east of their quadrant, have due familiarity with the north-east triplicity (consisting of Gemini, Libra, and Aquarius), and are governed by Saturn and Jupiter, and also by Mercury. Their inhabitants, therefore, participate in the influence of all the five planets in vespertine figuration, and consequently cherish due love and reverence for the gods, and dedicate themselves to their service. They are addicted to sepulchral ceremonies; and, owing to the said vespertine position, they bury their dead in the earth,[79] and remove them from the public eye. They use various laws and [Pg 50]customs, and worship divers gods. In a state of subjection, they are submissive, cowardly, abject, and most patient; but when they command, they are brave, generous, and high-minded. Polygamy is frequent among them, and practised by the women as well as the men: they are most licentious in sexual intercourse, and allow incestuous commerce between brothers and sisters. Both men and women are extraordinarily prolific, and correspond in this respect with the fecundity of their soil. Many of the men are, however, effeminate and debased in mind; in consequence of the figuration of the malefics, together with the vespertine position of Venus; and some of them mutilate their persons.[80]

Among these last-named countries, Cyrenaica, Marmarica, and particularly Lower Ægypt, are chiefly influenced by Gemini and Mercury: the natives are therefore highly intellectual and sensible, and gifted with capacity for every undertaking; above all, for the attainment of wisdom, and an insight into divine mysteries. They are also magicians, performing secret rites and ceremonies, and are in every respect calculated for the prosecution of all scientific inquiry.[81] The inhabitants of Thebais, Oasis, and Troglodytica, are connected with Libra and Venus; they are of warmer constitution, and more hasty disposition, and enjoy life in all its plentitude and abundance. The natives of Arabia, Azania, and Middle Æthiopia, have familiarity with Aquarius and Saturn; they consequently feed on flesh and fish indiscriminately, and live in a state of dispersion like wild beasts; they never unite in society, but lead a wandering and savage life.[Pg 51]

TABLE SHOWING ALL THE COUNTRIES BELONGING TO EACH SIGN RESPECTIVELY

Signs.	**Aries.**	**Taurus.**	**Gemini.**	**Cancer.**	**Leo**	**Virgo**
Triplicity.	North West.	South East.	North East.	South West.	North West.	South East.
Quadrant of the Countries.	North West.	South East.	North East.	South West.	North West.	South East.
Countries remote from the	Britain Galatia Germany Barsania	Parthia Media Persia	Hyrcania Armenia	Numidia Carthage Africa	Italy Apulia Sicily Gaul	Mesopotamia Babylonia Assyria

Signs.	**Aries.**	**Taurus.**	**Gemini.**	**Cancer.**	**Leo**	**Virgo**
middle of the earth.			Mantiana			
Quadrant of the Countries.	South East.	North West.	South West.	North East.	South East.	North West.
Countries near the middle of the earth.	Cælesyria Idumæa Judæa	Cyclades Cyprus Asia Minor	Cyrenaica Marmarica Lower Ægypt	Bithynia Phrygia Colchis	Phœnicia Chaldæa Orychnia	Hellas Achaia Crete

Signs.	**Libra.**	**Scorpio.**	**Sagittarius.**	**Capricorn.**	**Aquarius.**	**Pisces.**
Triplicity.	North East.	South West.	North West.	South East.	North East.	South West.
Quadrant of the Countries.	North East.	South West.	North West.	South East.	North East.	South West.
Countries remote from the	Bactriana Casperia Serica	Metagonitis Mauritani	Tuscany Celtica Spain	India Arriana Gedrosia	Sauromatica Oxiana Sogdiana	Phazania Nasamonitis

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Signs.	Aries.	Taurus.	Gemini.	Cancer.	Leo	Virgo
middle of the earth.		a Getulia				Garamantica
Quadrant of the Countries	South West.	North East.	South East.	North West.	South West.	North East.
Countries near the middle of the earth.	Thebais Oasis Troglodytica	Syria Commagene Cappadocia	Arabia Felix	Thrace Macedonia Illyria	Arabia Azania Middle Æthiopia	Lydia Cilicia Pamphylia

[Pg 52]The familiarities exercised by the Planets, and by the Signs of the Zodiac, together with the manners, customs, and qualities, particular as well as general, which they produce, have now been concisely described; but in order to facilitate the knowledge and use of them, the subjoined table is inserted, to show, at one view, what countries are in connection with each sign, respectively, according to the mode above detailed.

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CHAPTER IV

THE FAMILIARITY OF THE REGIONS OF
THE EARTH WITH THE FIXED STARS

In addition to the rules which have been already given, respecting the familiarity of the regions of the earth with the signs and planets, it must be observed, that all fixed stars which may be posited on any line, drawn from one zodiacal pole to the other, through such parts of the zodiac as may be connected with any particular country, are also in familiarity with that particular country.

And, with regard to metropolitan cities, it is necessary to state, that those points or degrees of the zodiac, over which the Sun and Moon were in transit, at the time when the construction of any such city was first undertaken and commenced, are to be considered as sympathizing with that city in an especial manner; and that, among the angles, the ascendant is principally in accordance with it. In certain cases, however, where the date of foundation of a metropolis cannot be ascertained, the mid-heaven in the nativity of the reigning king, or other actual chief magistrate, is to be substituted, and considered as that part of the zodiac with which it chiefly sympathizes.[82]

CHAPTER V

MODE OF PARTICULAR PREDICTION IN ECLIPSES

After having gone through the necessary preliminary topics, it is now proper to speak of the manner in which predictions are to be formed and considered; beginning with those which relate to general events, affecting either certain cities, or districts, or entire countries.

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The strongest and principal cause of all these events exists in the [Pg 53]ecliptical conjunctions of the Sun and Moon, and in the several transits made by the planets during those conjunctions.

One part of the observations, required in forming predictions in cases of this nature, relates to the locality of the event, and points out the cities or countries liable to be influenced by particular eclipses, or by occasional continued stations of certain planets, which at times remain for a certain period in one situation. These planets are Saturn, Jupiter, and Mars; and they furnish portentous indications, when they are stationary.

Another branch relates to time, and gives pre-information of the period at which the event will occur, and how long it will continue to operate.

The third branch is generic; and points out the classes, or kinds, which the event will affect.

The last part is specific; and foreshows the actual quality and character of the coming event.

CHAPTER VI

THE REGIONS OR COUNTRIES TO BE CONSIDERED AS LIABLE TO BE COMPREHENDED IN THE EVENT

The first of the several branches of consideration just enumerated relates to locality, and is to be exercised in the following manner:—

In all eclipses of the Sun and Moon, and especially in such as are fully visible, the place in the zodiac, where the eclipse happens, is to be noted; and it must be seen what countries are in familiarity with that place, according to the rules laid down regarding the quadrants and the triplicities; and in like manner it must be observed what cities are

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under the influence of the sign in which the eclipse happens; either by means of the ascendant, and the situations of the luminaries at the time of their foundation, or by means of the mid-heaven of their kings or governors, actually ruling at the time of the eclipse; although such time may be subsequent to the building of the said cities. Whatever countries or cities shall be thus found in familiarity with the ecliptical place, will all be comprehended in the event; which will, however, principally attach to all those parts which may be connected with the identical sign of the eclipse,[83] and in which it was visible while above the earth.[84]

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CHAPTER VII

THE TIME AND PERIOD OF THE EVENT

The second point requiring attention relates to time, and indicates the date when the event will take place, and the period during which its effect will continue: these are to be ascertained in the following manner.

It must however be premised, that as an eclipse, occurring at any particular season, cannot happen in all climates at the same temporal or solar hour,[85] so neither will the magnitude of the obscuration, nor the time of its continuance, be equal in all parts of the world. First, therefore (as is done in a nativity), the angles are to be arranged, in every country connected with the eclipse, according to the hour at which the eclipse takes place and the elevation of the pole in that country. The time, during which the obscuration of the eclipse may continue in each country, is then to be noted in equatorial hours.[86] And, after these particulars have been carefully observed, it is to be understood that the effect will endure as many years as the obscuration lasted hours, provided the

eclipse was solar; but if lunar, a like number of months is to be reckoned instead of years.

The commencement of the effect, and the period of its general intensity, or strength, are to be inferred from the situation of the place of the eclipse with respect to the angles. For, if the ecliptical place be near the eastern horizon, the effect will begin to be manifested in the course of the first four months after the date of the eclipse; and its general height, or intensity, will take place in, or about, the first third part of the whole extent of its duration. If the ecliptical place happen to be in or near the mid-heaven, the effect will begin to appear in the second four months, and its general intensity will occur about the second third part; and, if the place should fall near the western horizon, the effect will begin in the third four months, and take its general intensity in the last third part of its whole duration.[87]

[Pg 55]Partial intensities, or relaxations of the effect, are, however, to be inferred from any combinations which may happen during the intermediate period,[88] either in the actual places where the primary cause was presented, or in other places configurated therewith. They are also to be conjectured by the various courses, or transits, of such planets as co-operate in producing the effect, by being configurated with the sign in which the primary cause was situated; and, with this view, the matutine, vespertine, or stationary position, or midnight culmination of those planets must be observed; for the effect will be strengthened and augmented by their matutine or stationary position; but weakened and diminished by their being vespertine, or situated under the sunbeams, or by their midnight culmination.

CHAPTER VIII

THE GENUS, CLASS, OR KIND, LIABLE TO BE AFFECTED

The third division of these observations relates to the mode of distinguishing the genus, or species, of animals or things about to sustain the expected effect. This distinction is made by means of the conformation and peculiar properties of those signs in which the place of the eclipse, and the places of such fixed stars and planets, as are in dominion according to the actual sign of the eclipse, and that of the angle before it, may be found. And a planet, or fixed star, is to be considered as holding dominion when circumstanced as follows.

If there be found one planet having more numerous claims than any other to the place of the eclipse, as well as to that of the angle, being also in the immediate vicinity of those places, and visibly applying to, or receding from them, and having likewise more rights over other places connected with them by configuration; the said planet being, at the same time, lord by house, triplicity, exaltation, and terms; in such a case, only that single planet is entitled to dominion. But, if the lord of the eclipse and the lord of the angle be not identical, then those two planets which have most connections with each place are to be noted; and, of these two, the lord of the eclipse is to be preferred to the chief dominion, "although the other is to be considered as bearing rule conjointly."[89] And if more than two should be found, having equal preensions to each [Pg 56]place, that particular one among them which may be nearest to an angle, or most concerned with the places in question, by the nature of its condition, is to be selected for dominion.[90]

But, among the fixed stars, the chief bright one (which, during the time of the eclipse, may hold connection, in any of the nine modes of apparent configuration detailed in the First Syntaxis[91] with the angles then actually in passage), is to be admitted to dominion; as also that one which, at the ecliptical hour, may be in an eminent situation, either having risen, or having culminated with the angle following the place of the eclipse.[92]

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Having considered, according to the foregoing rules, what stars co-operate in regulating the coming event, the conformation and figure of the signs, in which the eclipse takes place and the said ruling stars may be posited, are also to be observed; and, from the properties and characteristics of those signs, the genus or species, to be comprehended in the event, is chiefly to be inferred.

For instance, should the zodiacal constellations, and those of the ruling fixed stars out of the zodiac, be of human shape, the effect will fall upon the human race. If the signs be not of human shape, but yet terrestrial, or quadrupedal, the event would be indicated to happen to animals of similar form: the signs shaped like reptiles signify that serpents and creatures of that description will be affected; those bearing the figure of ferocious beasts denote that the event will affect savage and destructive animals; and those figured like tame beasts show that it will operate on animals serviceable to mankind, and of domestic character; as intimated by the shape and figure of the signs, whether resembling horses, oxen, sheep, or any other useful animals. In addition to this, the terrestrial signs situated in the north, about the Arctic circle, indicate sudden earthquakes; and those in the south, sudden deluges of rain. And, should the ruling places be situated in signs shaped like winged animals, as in that of Aquila, or in others of similar form, the event will take effect on birds; and will chiefly attach to those which afford food to man. If the said [Pg 57]places should be in signs formed like creatures which swim, and in marine signs, such as Delphinus, the effect will be felt by marine animals, and in the navigation of fleets; if in river signs, such as Aquarius and Pisces, it will attach to animals living in rivers and in fresh waters: and, if in Argo, both sea and fresh-water animals will be affected by it.[93]

Again, should the ruling places be situated in tropical or in equinoctial signs, in either case alike they presignify changes in the state of the atmosphere, at the respective season to which each sign is appropriated. For example, with regard to the season of spring and the productions of the earth, if the said places should be in the sign of the

vernal equinox, they will produce an effect on the buds of the vine and fig, and of such other trees as sprout forth at that season. Should they be in the sign of the summer tropic, the event will affect the gathering and depositing of fruits; and, with respect to Ægypt in particular, it will impede the rising of the Nile. If they should be in the sign of the autumnal equinox, they foreshow that it will operate on grain and on various sorts of herbs; if in the sign of the winter tropic, on potherbs, esculent vegetables, and such birds and fishes as arrive in that season.

The equinoctial signs further indicate the circumstances liable to happen in ecclesiastical concerns, and in religious matters: the tropical signs give warning of changes in the atmosphere and in political affairs; the fixed signs, of changes in institutions and in buildings; and the bicorporeal signs show that the future event will fall alike on princes and their subjects.

Again, the ruling places situated in the east, during the time of the eclipse, signify that fruits and seeds, incipient institutions, and the age of youth, will be affected; those, which may be in the mid-heaven above the earth announce that the coming event will relate to ecclesiastical affairs, to kings and princes, and to the middle age; those in the west, that it will influence the laws, old age, and persons about to die.

The proportion liable to be affected, of that genus or kind on which the event will fall, is to be ascertained by the magnitude of the obscuration caused by the eclipse, and by the positions held by the operative stars in regard to the ecliptical place; as, in vespertine position to a solar eclipse, or in matutine position to a lunar eclipse, the said stars will most usually much diminish the effect; in opposition they render it moderate; but in matutine position to a solar eclipse, or in vespertine to a lunar, they greatly augment and extend it.[94]

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CHAPTER IX

THE QUALITY AND NATURE OF THE EFFECT

The discrimination of the peculiar properties and character of the effect about to be produced, and of its good or evil nature, occupies the fourth and last division of this part of the subject.

These properties must be gathered from the power of the stars which control the ruling places, and from the contemperament created by their relative admixture with each other and with the places which they control. For, although the Sun and Moon are the acknowledged sources of all the efficacy and dominion of the stars, and of their strength or weakness, and in a certain manner regulate and command them, still, it is by the theory of the contemperament, produced by the stars in dominion, that the effect is indicated.

In order to understand the indications thus made, it is necessary to begin by attending to the following detail of the effective property of each planet—previously observing, however, that, when any circumstance is said, for the sake of brevity, to come to pass by the general influence of the five planets, their temperament, and the power and assistance they may derive from natures similar to their own, the actual continuance of their own proper constitution, or the casual combination of any analogous influence, arising from fixed stars or places in the zodiac, are all, at the same time, to be kept in view. Consequently, whenever any general remark is herein made relative to the five planets, it will likewise be necessary to bear in mind both their temperament and quality; as fully, indeed, as if the stars themselves had not been named, but only their effective quality and nature. And, it is further to be remembered, that, in every case of compound temperament, not only the combination of the planets with each other requires to be considered, but also that of such fixed stars and zodiacal places as share in the natures

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of the planets, by being respectively connected with them according to the familiarities already described.

Hence, when Saturn may be sole governor, he will produce disasters concomitant with cold. And, in as far as the event may apply to the human race in particular, it will induce among men lingering diseases, consumptions, declines, rheumatisms, disorders from watery humours, and attacks of the quartan ague; as well as exile, poverty, and a general mass of evils, griefs, and alarms: deaths also will be frequent, but chiefly among persons advanced in age. That part of the brute creation [Pg 59]which is most serviceable to man will likewise suffer, and be destroyed by disease; and men who make use of the animals thus diseased will be infected by them, and perish with them. The atmosphere will become dreadfully chilly and frosty, unwholesome, turbid and gloomy, presenting only clouds and pestilence. Copious and destructive storms of snow and hail will descend, generating and fostering insects and reptiles noxious to mankind. In rivers, and at sea, tempests will be frequent and general, causing disastrous voyages and many shipwrecks; and even fish will be destroyed. The waters of the sea will retire for a time, and again return and produce inundations; rivers will overflow their banks, and cause stagnant pools; and the fruits of the earth, especially such as are necessary to sustain life, will be lost and cut off by blight, locusts, floods, rains, hail, or some similar agency; and the loss will be so extensive as to threaten even famine.

Jupiter, if he should be lord alone, will thoroughly improve and benefit all things. Among mankind, in particular, this planet promotes honour, happiness, content, and peace, by augmenting all the necessaries and comforts of life, and all mental and bodily advantages. It induces also favours, benefits, and gifts emanating from royalty, and adds greater lustre to kings themselves, increasing their dignity and magnanimity: all men, in short, will share in the prosperity created by its influence. With regard to the operation of the event on brutes, those which are domestic and adapted to man's service will be multiplied and will thrive; while others, which are useless and hostile to man,

will be destroyed. The constitution of the atmosphere will be healthy and temperate, filled with gentle breezes and moisture, and favourable to fruits. Navigation will be safe and successful; rivers will rise to their just proportion; fruit and grain, and all other productions of the earth conducive to the welfare and happiness of mankind, will be presented in abundance.

Mars, when governing alone, generally causes such mischief and destruction as are concomitant with dryness. And, among mankind, foreign wars will be excited, accompanied with intestine divisions, captivity, slaughter, insurrections of the people, and wrath of princes against their subjects; together with sudden and untimely death, the consequence of these disturbances. Feverish disorders, tertian agues, and hæmorrhages will take place, and will be rapidly followed by painful death, carrying off chiefly youthful persons: and conflagration, murder, impiety, every infraction of the law, adultery, rape, robbery, and all kinds of violence will be practised. The atmosphere will be parched by hot, pestilential, and blasting winds, accompanied by drought, lightnings, and fires emitted from the sky. At sea, ships will be suddenly wrecked by the turbulence of the wind and strokes of lightning. Rivers will fail, springs will be dried up, and there will be a scarcity of water proper for food and sustenance. All the creatures and productions of the earth adapted to the use of man, [Pg 60]whether beasts, grain, or fruits, will be damaged or destroyed by excessive heat, by storms of thunder and lightning, or by violent winds; and whatever has been deposited in store will be destroyed or injured by fire, or by heat.

Venus, alone in domination, generally produces the same effects as Jupiter, yet with greater suavity and more agreeably. Glory, honour, and joy will attend mankind; happy marriages will be contracted, and the fortunate pairs will be blest with numerous children. Every undertaking will proceed prosperously, wealth will increase, and the conduct of human life will be altogether pure, simple and pious; due reverence being paid to all holy and sacred institutions, and harmony subsisting between princes and

their subjects. The weather also will be of a favourable temperature, cooled by moistening breezes; the air altogether pure and salubrious, frequently refreshed by fertilising showers. Voyages will be performed in safety, and be attended by success and profit. Rivers will be improved, and receive their adequate supply of waters; and all things valuable and useful to mankind, whether animal or vegetable, will abundantly thrive and multiply.

Mercury, if possessing dominion, is usually conjoined with one or other of the planets before-mentioned, and is conformed and assimilated to their natures; yet as, in itself, it presents a certain addition to their power, this planet increases the respective impulses of them all. And, in regard to the operation of the event on mankind, it will promote industry and skill in business; but, at the same time, thievish propensities, robberies, and plots of treachery: if configurated with the malefics, it will produce calamities in navigation, and will also cause dry and parching diseases, quotidian fever, cough, consumption, and hæmorrhage. All parts of the ceremonies and services of religion, the affairs of the executive government, as well as manners, customs, and laws, are disposed and regulated by this planet, conformably to its admixture and familiarity with each of the others. And in consequence of the dryness of its nature, arising from its proximity to the Sun, and the rapidity of its motion, it will generate in the atmosphere turbulent, sharp and varied winds, together with thunders, meteors, and lightnings, accompanied by sudden chasms in the earth, and earthquakes: by these means it not unfrequently occasions the destruction of animals and plants assigned to the service of mankind. Besides the foregoing effects, it produces, when in vespertine position, a diminution of waters, and, when matutine, an augmentation.

Each of the planets, when fully exercising its own separate and distinct influence, will properly produce the peculiar effects above ascribed to it; but should it be combined with others, whether by [Pg 61]configuration, by familiarity arising from the sign in which it may be posited,[95] or by its position towards the Sun, the coming event will

then happen agreeably to the admixture and compound temperament which arise from the whole communion actually subsisting among the influencing powers. It would, however, be a business of infinite labour and innumerable combinations, quite beyond the limits of this treatise, to set forth fully every contemperament and all configurations, in every mode in which they can possibly exist; and the knowledge of them must therefore be acquired by particular discrimination in every instance, under the guidance of the precepts of science. Yet the following additional remark must not be here omitted.

The nature of the familiarities, subsisting between the stars, lords of the coming event, and the countries or cities over which the event will extend, requires to be observed; for, should the stars be benefic, and their familiarity with the countries liable to sustain the effect be unimpeded by any opposing influence, they will then exercise the favourable energies of their own nature in a greater degree. And, on the other hand, when any obstacle may intervene to obstruct their familiarity, or when they themselves may be overpowered by some opposing influence, the advantages of their operation will be diminished. Again, should the stars, lords of the coming event, not be benefic, but injurious, their effect will be less severe, provided they may either have familiarity with the countries on which the event will fall, or be restrained by some opposing influence. If, however, they should have no such familiarity, and not be subjected to restraint by any others, endowed with a nature contrary to their own and possessing a familiarity with the countries in question, the evils which they produce will then be more violent and intense. And all these general affections, of whatever kind, whether good or evil, will be principally felt by those persons in whose individual nativities there may be found the same disposition of the luminaries (which are the most essential significators), or the same angles, as those existing during the eclipse which operates the general affection. The same remark equally applies to other persons, in whose nativities the disposition of the luminaries and of the angles may be in opposition to that existing during the eclipse. With respect to these coincidences, the partile agreement, or

opposition, of the ecliptical place of the luminaries to the place of either luminary in a nativity, produces an effect at least capable of being guarded against.[96]

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CHAPTER X

COLOURS IN ECLIPSES; COMETS, AND SIMILAR PHENOMENA

In investigating general events, it is necessary further to observe the colours or hues displayed during an eclipse, either in the luminaries, or around them; in the shape of rods or rays, or in other similar forms. For, if these colours or hues should be black, or greenish, they portend effects similar to those produced by Saturn's nature; if white, to those operated by Jupiter; if reddish, to those by Mars; if yellow, to those by Venus; and if of various colours, to those by Mercury.

And, if the entire bodies of the luminaries be thus coloured, or should the hues extend over all the parts immediately circumjacent to the luminaries, it is an indication that the effects will attach to most parts of the region, or countries, with which the eclipse and its ruling places may be in familiarity. If, however, the colouring should not spread over the whole surface of the luminaries, nor over all the parts around them, but be limited to some particular quarter, then only such a portion of the said countries, as may be indicated by the situation of the visible hues, will be comprehended in the event.

It is also requisite to notice, with respect to general events, the risings or first appearances of those celestial phenomena called comets, whether presenting themselves at ecliptical times or at any other periods. They are displayed in the shape of beams, trumpets, pipes, and in other similar figures, and operate effects like those of

Mars and Mercury; exciting wars, heated and turbulent dispositions in the atmosphere, and in the constitutions of men, with all their evil consequences. The parts of the zodiac[97] in which they may be posited when they first appear, and the direction and inclination of their trains, point out the regions or places liable to be affected by the events which they threaten; and the form of the signs indicates the quality and nature of those events, as well as the [Pg 63]genus, class, or kind, on which the effect will fall. The time of their continuance shows the duration of their effect; and their position, with regard to the Sun, the period when it will commence; as, if they first appear matutine, they denote an early commencement; but, if vespertine, that it will be late and tardy.

The general and more comprehensive parts of the consideration regarding regions, countries, and cities, having now been explained, it becomes necessary to discuss certain particular points of the same consideration; that is to say, the annual occurrences which take place at certain fixed seasons, and the chief of which is that called the New Moon of the Year.

CHAPTER XI

THE NEW MOON OF THE YEAR

In every annual revolution made by the Sun, the first new Moon of the year is to be considered as the point of the commencement of his circuit; this is evident not only from its denomination, but from its virtue also.[98]

The case stands thus: In the ecliptic, which, as circle, has in fact no actual or definite beginning, the two equinoctial and the two tropical points, marked by the equator and the tropical circles, are reasonably assumed as beginnings. And to obviate any doubt as to which of these four points should preferably be considered as the primary beginning (since in the regular simple motion of a circle no part of it has any apparent precedence),

the appropriate quality naturally belonging to each of these four points has been taken into consideration by the writers on this subject. And the point of the vernal equinox has been consequently designated by them as the beginning of the year; because, from that time, the duration of the day begins to exceed that of the night, and because the season then produced partakes highly of moisture, which is always a predominant quality in all incipient generation and growth. After the vernal equinox comes the summer solstice; when the day attains its greatest length, and in Ægypt, at the same period, the rise of the Nile takes place and the Dog Star appears. Then follows the autumnal equinox, when all fruits are gathered in, and the sowing of seeds recommences anew; lastly, comes the winter solstice, when the day proceeds from its shortest duration towards its increase.

[Pg 64]Although the foregoing arrangement has been adopted by men of science to denote the commencement of the several seasons of the year, it yet seems to be more consonant to nature, and more consistent with the facts, that the combined positions of the Sun, and the new, or full, Moon, which happen when the Sun is nearest to the points above mentioned, should mark the four beginnings; and more especially if such combined positions should produce eclipses: thus, from the new or full Moon, taking place when the Sun is nearest to the first point of Aries, the spring should be dated; from that when the Sun is nearest to the first point of Cancer, the summer; from that when he is nearest to the first point of Libra, the autumn; and from that when he is nearest to the first point of Capricorn, the winter. The Sun not only produces the general qualities and constitutions of the seasons, by means of which very illiterate persons are enabled, in a certain degree, to form predictions, but he also regulates the proper significations of the signs with regard to the excitation of the winds, as well as other general occurrences, more or less subjected to occasional variation. All these general effects are usually brought about by the new or full Moon which takes place at the aforesaid points, and by the configurations then existing between the luminaries and the

planets: but there are certain particular consequences which result from the new and full Moon in every sign,[99] and from the transits of the planets; “and which require monthly investigation.”[100]

It therefore becomes necessary to explain, in the first instance, the particular natures and attributes exercised by each sign in influencing the several constitutions of the weather, as it exists at various times of the year; these natures and attributes shall now be immediately detailed. It will be recollected, that the particular properties of the planets and the fixed stars, as affecting the wind and the atmosphere, as well as the manner in which the entire signs hold familiarity with the winds and the seasons, have been already set forth.

CHAPTER XII

THE PARTICULAR NATURES OF THE SIGNS BY WHICH THE DIFFERENT CONSTITUTIONS OF THE ATMOSPHERE ARE PRODUCED[101]

The sign of Aries has a general tendency, arising from the presence of the Equinox, to promote thunder and hail. Certain of its parts, however, operate in a greater or less degree, according to the nature of the stars [Pg 65]which compose the sign: for instance, the front parts excite rain and wind; the middle are temperate; and those behind are heating and pestilential. The northern parts, also, are heating and pernicious, but the southern cooling and frosty.

The sign of Taurus, in its general character, partakes of both temperaments,[102] but is nevertheless chiefly warm. Its front parts, and especially those near the Pleiades, produce earthquakes, clouds and winds: the middle parts are moistening and cooling;

those behind, and near the Hyades, are fiery, and cause meteors and lightnings. The northern parts are temperate; the southern turbulent and variable.

Gemini, in its general tendency, is temperate; but its leading parts produce mischief by moisture; its middle parts are entirely temperate; its latter parts mixed and turbulent. The northern parts promote earthquakes and wind; and the southern are dry and heating.

Cancer is, in the whole, serene and warm, but its anterior part near the Præsepe are oppressively hot and suffocating; the middle parts are temperate, and the latter parts excite wind. And both its northern and southern parts are equally fiery and scorching.

Leo has a general tendency operative of stifling heat. The anterior parts are oppressively and pestilentially hot; yet the middle parts are temperate; and those behind are injurious by means of moisture. The northern parts produce variation and heat, and the southern moisture.

Virgo, in its general tendency, excites moisture and thunder. The front parts, however, are chiefly warm and noxious; the middle temperate; and the latter parts watery. The northern parts promote wind; the southern are temperate.

Libra has a general tendency to produce change and variation. Its front and middle parts are temperate; its hinder parts watery. The northern parts cause variable winds, and the southern are moistening and pestilential.

Scorpio, in its general character, is fiery and productive of thunder. The front parts cause snow; the middle are temperate; the latter parts excite earthquakes. Its northern parts are heating; its southern, moistening.

Sagittarius, generally, is effective of wind. The front parts are moistening; the middle temperate; and the hinder parts fiery. The northern parts promote wind, and the southern variation and moisture.[Pg 66]

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Capricorn's general tendency is to operate moisture. But its anterior parts are pernicious by means of heat, its middle parts are temperate, and its latter parts promote rain. Both its northern and southern parts are injurious by means of moisture.

Aquarius, in its general character, is cold and watery. The front parts are moistening; the middle temperate; and the latter parts productive of wind. The northern parts are heating; the southern cause snow.

Pisces, in its general character, is cold and effective of wind. The front parts are temperate; the middle moistening; the hinder parts highly heating. The northern parts excite wind, and the southern are watery.

CHAPTER XIII

MODE OF CONSIDERATION FOR PARTICULAR CONSTITUTIONS OF THE ATMOSPHERE

The first part of the consideration, requisite to form an estimate of the various constitutions liable to take effect in the atmosphere, applies to the general qualities pervading the several quarters of the year, and has therefore the most extended scope. In order to learn these qualities, it is necessary, in every quarter, to observe, as above directed, the new or full Moon which may happen before[103] the period of the Sun's transit through either tropical or equinoctial [Pg 67]point, whichever it may be; and to arrange the angles (as in the case of a nativity) according to the degree and hour at which the new or full Moon may be found to happen, in every latitude for which the consideration may be desired. Such planets and stars as may have dominion over the places where the said new or full Moon happens, and over the following angle, are then to be noted, in the same manner as that stated with regard to eclipses. And after these preliminary steps have been attended to, a general inference may be drawn as to the

proper qualities of the whole quarter; and the intensity or relaxation of their operation is to be contemplated from the natures of the ruling planets and stars, distinguished by the faculties they possess, and by the mode in which they affect the atmosphere.

The second part of the consideration relates to each month, and requires a similar observation of the new or full Moon first taking place on the Sun's progress through each sign: and it must be remembered, that, if a new Moon should have happened at a period nearest to the Sun's transit over the past tropical or equinoctial point, the new Moon also in each succeeding sign, until the commencement of the next quarter, are to be observed; but, if a full Moon should have so happened, then similar observation is to be made of each subsequent full Moon. The angles, also, must be duly attended to, as well as the planets and stars ruling in both the places[104]; and especially the nearest phases, applications, and separations of the planets, and their properties. The peculiar qualities of the two places, and the winds, liable to be excited by the planets themselves and by those parts of the signs in which they may be situated, are likewise to be considered; and also that particular wind, which is indicated by the direction of the Moon's ecliptical latitude. By the aid of these observations, and by weighing and comparing the existing vigour of each of the several properties and qualities, the general constitution of the atmosphere during each month may be predicted.

The third part of this consideration appertains to significations applying more minutely, and points out their force or weakness. In [Pg 68]this case, the partile configurations of the Sun and Moon, at the intermediate quarters, as well as at the new or full Moon, are to be attentively regarded; since there is a certain variation in the constitution of the atmosphere, which usually commences about three days before, and sometimes, also, about three days after the Moon has equated her course to the Sun. The configurations effected between the Moon, at each quarterly equation, and the planets, whether by the trine, sextile, or other authorized distances, are also to be observed; because the peculiar property of the change in the constitutions of the

atmosphere depends much upon such configurations, and may be accordingly perceived by considering the nature of the influence which the said configurated planets and the signs exercise over the atmosphere and the winds.

The particular quality of the weather, thus produced, will be more fully established on certain days; especially when the brighter and more efficacious fixed stars maybe near the Sun, either matutine or vespertine; as, when so posited, they most frequently convert the constitution of the atmosphere to an agreement with their own natures: and, when the Luminaries may transit any one of the angles, a similar effect is also produced. At all such positions the particular constitutions of the atmosphere are subject to variation, and thus become alternately more intense or more relaxed in their respective qualities. In this manner, by certain positions of the Moon, the flux and reflux of the sea are caused: and, when the Luminaries may be in angles, a change of the wind is produced, according to the direction of the Moon's ecliptical latitude.

Finally, in all these considerations, it must be remembered that the more general and first constituted cause takes precedence, and that the particular cause comes subsequently and secondarily: and, that the operation is in the highest degree confirmed and strengthened, when the stars, which regulate the general effects, may be also configurated towards the production of the particular effects.

CHAPTER XIV

THE SIGNIFICATION OF METEORS

In order to facilitate prognostication in minor and more limited instances, it is important to make further observation of all remarkable appearances occasionally visible around or near the Sun, Moon, and stars. And, for the diurnal state of the atmosphere, the Sun's rising should be remarked; for the nocturnal state, his setting; but

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the probable duration of any such state must be considered by reference to the Sun's configuration with the Moon; for, in most cases, each aspect, made between them, indicates the continuance of a certain state until another aspect shall take place.

Hence, the Sun, when rising or setting, if he shine clear and open, free [Pg 69]from mists, gloom, and clouds, promises serene weather. But, if he have a wavering or fiery orb, or seem to emit or attract red rays, or if he be accompanied in any one part by the clouds called parhelia, or by other reddish clouds of extended figure, in the form of long rays, he then portends violent winds, chiefly liable to arise from those parts in which the said phenomena may have shown themselves. If he should be pale or lurid, and rise or set encumbered with clouds, or surrounded by halos, he indicates storms and winds coming from the quarter of his apparent situation: and, if he be also accompanied by parhelia, or by lurid or dark rays, similar effects are also threatened from the parts where those appearances may be situated.[105]

The Moon's course is to be carefully observed, at the third day before or after her conjunction with the Sun, her opposition, and her intermediate quarters; for, if she then shine thin and clear, with no other phenomena about her, she indicates serenity; but, if she appear thin and red, and have her whole unilluminated part visible, and in a state of vibration, she portends winds from the quarter of her latitude and declination[106]: and if she appear dark, or pale and thick, she threatens storms and showers. All halos formed around the Moon should also be observed; for, if there appear one only, bright and clear, and decaying by degrees, it promises serene weather; but, if two or three appear, tempests are indicated: and, if they seem reddish and broken, they threaten tempests, with violent and boisterous winds; if dark and thick, they foreshow storms and snow; if black and broken, tempests with both winds and snow; and, whenever a greater number may appear, storms of greater fury are portended.

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The planets, also, and the brighter fixed stars, occasionally have halos, which indicate certain effects appropriate to their tinctures, and to the nature of the stars around which they may be situated.

The apparent magnitudes of the fixed stars, and the colours of the luminous masses among them, are likewise to be remarked: for, when the stars appear brighter and larger than usual, they indicate an excitation of the wind from that quarter in which they may be situated. The nebulous mass of the Præsepe in Cancer, and others similar to it, also require observation; as, if in fine weather they appear gloomy and [Pg 70]indistinct, or thick, they thereby threaten a fall of rain; but, if clear and in continual vibration, they announce rough gales of wind.[107]

Appearances occasionally visible in the sky, resembling the trains of comets,[108] usually indicate wind and drought; in a degree proportionate to their multitude and continuance.

Appearances, resembling shooting or falling stars, when presented in one part only, threaten a movement of wind from that part;[109] when in various and opposite parts, they portend the approach of all kinds of tempestuous weather, together with thunder and lightning. Clouds resembling fleeces of wool will also sometimes presage tempests; and the occasional appearance of the rainbow denotes, in stormy weather, the approach of serenity; in fine weather, storms. And, in a word, all remarkable phenomena, visible in the sky, universally portend that certain appropriate events will be produced, each harmonising with its proper cause, in the manner herein described.

After the forgoing brief investigation of the more limited as well as more extensive significations, regarding general events, it becomes proper to proceed to the doctrine of genethliacal prognostication, or judgments of individual nativities.

END OF BOOK II

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BOOK THE THIRD

CHAPTER I

PROEM

In the preceding pages, such events as effect the world generally have been discussed in priority; because they are operated by certain principal and paramount causes, which are, at the same time, predominant over particular and minor events applicable only to the separate properties and natural peculiarities of individuals. The foreknowledge of these particular events is called Genethlialogy, or the science of Nativities.

It must be remembered that the causation, by which all effects, whether general or particular, are produced and foreknown, is essentially one and the same; for the motions of the planets, and of the Sun and Moon, present the operative causation of events which happen to any individual, as well as of those which happen generally; and the foreknowledge of both may be obtained by the several creatures and substances, subjected to the influence of the heavenly bodies, and by due attention to the changes produced in those natures, by the configurations displayed in the Ambient by the planetary motion.

Still, however, the causes of general events are greater and more complete than those of particular events; and, although it has been now stated, that one single identical power supplies both the causation and the foreknowledge of general as well as particular events, yet there does not belong to the two sorts of events a similar origin or beginning,

at which observation of the celestial configurations must be made, for prognostication. In regard to general events, the dates of origin and commencement are many and various; for all general events cannot be traced to one origin, neither is their origin always considered by means of the matter subjected to their operation, for it may be also established by circumstances occurring in the Ambient and presenting the causation. It may, in fact, almost be said that they all originate in eminent eclipses of the Luminaries, and in remarkable transits made by the stars, at various times.

Particular events, however, which concern men individually, may be traced to one origin, single as well as manifold. Their origin is single, in respect to the primary composition of the nascent man; but it is also manifold, in respect to other circumstances subsequently indicated by dispositions in the Ambient, correlative to the primary [Pg 72]origin. In all particular events, the origin, or birth, of the subjected matter itself, must, of course, be the primary origin; and, in succession thereto, the various beginnings of other subsequent circumstances are to be assumed. Hence, therefore, at the origin of the subjected matter, all the properties and peculiarities of its contemperament must be observed; and then the subsequent events, which will happen at certain periods, sooner or later, are to be considered by means of the division of time, or the scale of the ensuing years.[110]

CHAPTER II

THE CONCEPTION AND THE PARTURITION, OR BIRTH; BY WHICH LATTER EVENT THE ANIMAL QUITS THE WOMB, AND ASSUMES ANOTHER STATE OF EXISTENCE

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The actual moment, in which human generation commences, is, in fact, by nature, the moment of the conception itself; but, in efficacy with regard to subsequent events, it is the parturition or birth.

In every case, however, where the actual time of conception may be ascertained, either casually or by observation, it is useful to remark the effective influence of the configuration of the stars as it existed at that time; and, from that influence, to infer the future personal peculiarities of mind and body. For the seed will, at the very first, and at once, receive its due quality, as then dispensed by the Ambient; and, although in subsequent periods its substance is varied by growth and conformation, it will still, by the laws of nature, congregate, during its growth, only such matter as may be proper to itself, and will become more and more imbued with the peculiar property of the first quality impressed on it at the time of conception. These precepts must always be attended to, when that time can be ascertained.

But, if the time of conception cannot be precisely made out, that of the birth must be received at the original date of generation; for it is virtually the most important, and is in no respect deficient, on comparison with the primary origin by conception, except in one view only; viz. that the origin by conception affords the inference of occurrences which take effect previously to the birth, whereas the origin by birth can, of course, be available only for such as arise subsequently. And, although the birth should in strictness be called the secondary beginning, while the conception might be insisted on as the primary beginning, it is still found to be equal to the conception in its efficacy, and much more complete, although later in time. For the conception may, in fact, be said to be the generation of mere human seed, but the birth that of man himself; since the infant at its birth [Pg 73]acquires numerous qualities which it would not possess while in the womb, and which are proper to human nature alone; “such, for instance, as the particular action of the senses and the movement of the body and limbs.”[111] Besides, even if the position of the Ambient, actually existing at the birth, cannot be considered

to assist in forming and engendering the particular shape and qualities of the infant, it is nevertheless still auxiliary to the infant's entrance into the world: because nature, after completing the formation in the womb, always effects the birth in immediate obedience to some certain position of the Ambient, corresponding and sympathising with the primary position which operated the incipient formation. It is therefore perfectly admissible, and consistent with reason, that the configuration of the stars, as it exists at the time of birth, although it cannot be said to possess any share of the creative cause, should still be considered to act in signification, as fully as the configuration at the time of conception; because it has, of necessity, a power corresponding to that configuration which actually possessed the creative cause.

In speaking of the practicability of prognostication, in the commencement of this treatise, the intention of setting forth this part of the subject, now under consideration, in a scientific manner, has been already notified. The ancient mode of prediction, founded on the commixture of all the stars, and abounding in infinite complication and diversity, will therefore be passed over; and, in fact, any attempt to detail it, however accurately and minutely made, in conformity to the several precepts given in the traditions relating to it, would prove unserviceable and unintelligible: it is therefore entirely abandoned. And the doctrine, now presented, comprehending every species of event liable to happen, and explaining all the effective influences generally exercised by the stars, in their separate qualities, over every species of event, shall be delivered succinctly, and in agreement with the theory of nature.

With this view, certain places in the Ambient, regulating the formation of all inferences of the events liable to affect mankind, are appointed as a kind of mark to which the whole theory of those inferences is applied, and to which the operative powers of the stars, when holding familiarity with the said places, are in a general manner directed: in the same way as, in archery, the arrow is directed to the target. And any event, which depends on the compound temperament of many various natures and

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influences together, must be left to the discretion of the artist, who, like the skilful archer, must himself judge of the best mode of hitting the mark.

To proceed methodically and in due order, it is proper to commence by investigating such general events as are open to consideration, and liable to have happened, or to happen, at the actual origin by birth; [Pg 74]since, from that origin, all things necessary to be investigated may be gathered; as before stated. Yet, if a previous inquiry, by means of the primary origin by conception, should nevertheless be desired and undertaken, such an inquiry may still in some degree assist prognostication; although only in regard to properties and qualities dispensed and imbibed at the time of conception.

CHAPTER III

THE DEGREE ASCENDING

There frequently arises some uncertainty as to the precise time of birth, and some apprehensions lest it should not be accurately noted. In most cases, the actual minute of the hour, at which the birth happens, can only be ascertained by making a scientific observation, at the time, with an horoscopical astrolabe[112]; for all other instruments, employed in ascertaining the hour, are almost fallacious, although used by many persons with much care and attention. The clepsydra,[113] for instance, is subject to error, because the flow of the water will, from various causes, proceed irregularly: and the sundial is often incorrectly placed, and its gnomon often distorted from the true meridian line. To obviate the difficulty arising from the inaccuracy of these instruments, it seems highly necessary to present some method by which the actually ascending degree of the zodiac may be easily ascertained, in a natural and consistent manner.

And in order to attain this essential point, it is necessary first to set down the ordinary degree which, by the Doctrine of Ascensions,[114] is found near the ascendant at the

presumed hour. After this has been done, the new or full Moon, whichever it may be, that may take place next before the time of parturition, must be observed: and, if a new Moon, it will be necessary to mark exactly the degree of the conjunction of the two luminaries; but, if a full Moon, the degree of luminary only which may be above the earth during the parturition. After this, it must be observed what planets have dominion over the said degree: and their dominion depends always on the five following prerogatives, viz. on triplicity, house, exaltation, terms, and phase [Pg 75]or configuration[115]; that is to say, a planet, eligible to dominion, must be connected with the degree in question either by one, or more, or all of these prerogatives.

If, therefore, there may be found any one planet properly qualified in all or most of these prerogatives, the exact degree, which it occupies in that sign in which it may be posited during the parturition, is to be remarked; and it is then to be inferred that a degree of the same numerical denomination was actually ascending, at the precise time of birth, in that sign which appears, by the Doctrine of Ascensions, to be nearest to the ascendant.[116]

But when two planets, or more, may be equally qualified in the manner prescribed, it must be seen which of them may transit, during the parturition, a degree nearest in number to the ordinary degree shown by the Doctrine of Ascensions to be then ascending; and that said degree, nearest in number, is to be considered as pointing out the numerical denomination of the degree actually ascending. And when the degrees of two planets, or more, may closely and equally approximate in numerical denomination to the ordinary degree found by the Doctrine of Ascensions, the degree of that planet which possesses further claims, by connection with the angles and by its own condition, is to regulate the number of the actually ascending degree.

It must however be observed, that if the actual distance of the degree, in which the ruling planet may be posited, from the ordinary degree ascending, be found to exceed its distance from the ordinary degree of the mid-heaven; the numerical denomination,

found in the way above mentioned, is then to be considered as applicable to the actual degree in culmination; and the other angles are to be arranged in conformity therewith.[117]

CHAPTER IV

DISTRIBUTION OF THE DOCTRINE OF NATIVITIES

After due attention to the preceding instructions, the doctrine of genethliacal prognostication should be separately and distinctly considered, for the sake of order and perspicuity, in its first, second and successive divisions or heads of inquiry. It will thus be found to present a mode of investigation, at once practicable, competent and agreeable to nature.

One division is applicable only to certain circumstances established previously to the birth; as, for instance, to those which concern the [Pg 76]parents; another to circumstances, which may be established both before and after the birth; as those respecting brothers and sisters; another to circumstances actually occurring at the very time of birth, and immediately consequent thereupon: and this head of inquiry embraces various points, and is by no means simple: and the last division relates to events liable to take place after the birth, at various periods, earlier or later; and it involves a still more diversified theory.

Thus, the questions to be solved, in regard to the actual circumstances of the birth itself, are, whether the production will be male or female; twins, or even more; whether it will be monstrous; and whether it will be reared.

The questions of the periods subsequent to the birth relate first to the duration of life (which is distinct from the question of rearing), then to the shape and figure of the body,

to the bodily affections, and to injuries or defects in the members. After these, further inquiry is instituted as to the quality of the mind, and the mental affections; then, as to fortune, in regard to rank and honours as well as wealth. In succession to these, the character of the employment or profession is sought out; then, the questions relative to marriage and offspring, and to consentaneous friendship, are to be considered; then, that concerning travel; and, lastly, that concerning the kind of death which awaits the native. The question of death, although depending, in fact, upon the same influence as the question of the duration of life, seems yet to find its proper situation in being placed last in the series.

On each of the foregoing points of inquiry, the doctrine and precepts to be followed shall be thoroughly and succinctly detailed; but all idle conceits, promulgated by many persons without any foundation capable of sustaining the test of reason, shall be utterly avoided, in deference to the only true agency, which is derived from primal Nature herself. It is only upon clearly effective influences that this treatise is established: and all matters, which are open to an authorized mode of inquiry by means of the theory of the stars, and their positions and aspects with regard to appropriate places, shall be fully discussed here; but the divination by lots and numbers, unregulated by any systematic causation, must remain unnoticed.

The brief remarks, immediately following, are applicable to all cases, generally, and are now at once stated, to avoid the repetition of them under each particular division or head of inquiry.

Firstly, notice must be taken of that place in the zodiac which corresponds, according to the scheme of the nativity with the particular division of inquiry; for example, the place of the mid-heaven is adapted to questions comprised under the head of employment or profession; and the Sun’s place to those relative to the concerns of the father.

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Secondly, after the proper place has thus been duly ascertained, the planets holding right of dominion there, by any of the five prerogatives hereinbefore mentioned, are to be observed; and, if any [Pg 77]one planet be found to be lord by all these prerogatives, that planet must be admitted as the ruler of the event liable to happen under that particular head of inquiry. If, however, two or three planets hold dominion, that one among them, which may have most claims to the place in question, must be selected as the ruler.

Thirdly, the natures of the ruling planet and of the signs, in which itself and the place which it thus controls may severally be situated, are to be considered as indicating the quality of the event.

Fourthly, the proportionate vigour and strength, or weakness, with which the dominion is exercised, as exhibited either by the actual cosmical position of the ruling planet, or by its position in the scheme of the nativity, will point out to what extent and with what force the event will operate. And a planet is found to be cosmically powerful when in one of its own places,[118] or when oriental, or swift in course; and it is strong in the scheme of the nativity, when transiting an angle or succedent house; especially those of the ascendant, or of the mid-heaven. But it is cosmically weaker, when not in one of its own places; or when occidental, or retarded in its course; and in respect to the scheme of the nativity, it is weak when cadent from the angles.

Lastly; the general time, about which the event will take place, is to be inferred from the ruling planet's matutine or vespertine position, in regard to the Sun and the ascendant, and from the circumstance of its being situated in an angle, or a succedent house. As, if it be matutine, or in an angle, its influence operates earlier and more promptly; but, if vespertine or in a succedent house, later and more tardily. And, in reference to this point, the quadrant which precedes the Sun, and that which precedes the ascendant, together with the quadrants opposite to these, are oriental and matutine; and the other quadrants, following the former, are occidental and vespertine.

CHAPTER V

THE PARENTS

Under each head of inquiry, the proposed investigation must be entered upon in the manner mentioned in the preceding chapter: and, to proceed in due order, the circumstances relating to the parents require to be first disposed of.

In conformity with nature, the Sun and Saturn are allotted to the person of the father; and the Moon and Venus to that of the mother: and the mode in which these luminaries and planets may be found posited, with reference to each other, as well as to other planets and stars, will intimate the situation of affairs affecting the parents.

Thus, for example, the degree of their fortune and wealth will be [Pg 78]indicated by the doryphory,[119] or attendants of the luminaries. If the luminaries be accompanied (either in the same signs in which themselves are placed, or in the signs next following), by the benefics, and by such stars or planets as are of the same tendency as themselves, a conspicuous and brilliant fortune is presaged: especially, should the Sun be attended by matutine stars, and the Moon by vespertine,[120] and these stars be also well established in the prerogatives before mentioned. Likewise, if Saturn or Venus be matutine, and in proper face,[121] or in an angle, it foreshows the prosperity of either parent respectively, according to the scheme.[122] If, however, the luminaries hold no connection with the planets, and be unattended by any doryphory, the adverse fortunes of the parents, their humble state and obscurity, and then denoted; especially, if Saturn and Venus may not be favourably constituted. The parents are also subjected to a state of vicissitude, never rising above mediocrity, when the luminaries may have a doryphory of a condition or tendency foreign to their own: as, for instance, when Mars may ascend near in succession to the Sun, or Saturn to the Moon; or if the benefics be found constituted unfavourably, and not in conformity with their own natural condition

and tendency. But should the part of fortune, as shown by the scheme of the nativity, be found in a favourable position, and in consonance with the doryphory of the Sun and Moon, the estate of the parents will then remain steady and secure. If, however, the position be discordant and adverse, or if the malefics compose the doryphory, the parents' estate will be unproductive and even burthensome.

The probable duration of the lives of the parents is to be inferred by means of other configurations. And, in the case of the father, a long life is presaged, if Jupiter, or Venus, be in any mode whatever configurated with either the Sun, or Saturn; or, also, if Saturn himself make an harmonious configuration with the Sun; (that is to say, either by the conjunction, the sextile, or the trine); provided such configuration be fully and strongly established and confirmed:[123] and, when not so established and confirmed, although it does not actually denote a short life, yet it will not then equally presage a long life.[Pg 79]

If however the planets be not posited in the manner just described; and if Mars be elevated above,[124] or ascend in succession to the Sun, or to Saturn; or, even, should Saturn himself not be in consonance with the Sun, but configurated with it by the quartile or opposition, and if, when thus circumstanced, both he and the Sun should be posited in cadent houses, it is then indicated that the father is liable to infirmities; but, if in angles or succedent houses, the father will live only a short life, and suffer from various bodily injuries and diseases. The shortness of his life is particularly intimated by the position of the Sun and Saturn in the first two angles, viz. the ascendant and the mid-heaven, or in their succedent houses; and his affliction by diseases and injuries, when they may be posited in the two other angles, the western and the lower heaven, or in the houses succedent thereto. And, if Mars be aspected to the Sun in the way before-mentioned, the father will die suddenly, or receive injury in his face or eyes; but, should Mars be so aspected to Saturn, he will be afflicted with contractions of the muscles or limbs, and with fevers and disorders proceeding from inflammation and wounds; or

even death may be the consequence. And even Saturn himself, if badly configurated with the Sun, will also inflict disease and death on the father, by inducing such particular disorders as are incidental from watery humour.

The foregoing observations are applicable to the father, and those which follow must be attended to in the case of the mother.

Should the Sun be configurated, in any mode whatever, with the Moon or Venus, or, should Venus herself be harmoniously configurated with the Moon, either by the sextile, the trine, or the conjunction, the mother will live long.

If, however, Mars be succedent to the Moon and Venus, or in quartile or opposition to them, or, if Saturn be similarly aspected to the Moon only, and both of them be void of course or retrograde, or cadent, adverse accidents and disease will attend the mother; should they, on the other hand, be swift in motion and placed in angles, they portend that her life will be short, or grievously afflicted. Their position in the oriental angles, or succedent houses, particularly denotes the shortness of her life; and, in those which are occidental, her affliction. In the same manner, should Mars be thus aspected to the Moon (and should that luminary at the same time be oriental), the mother's sudden death, or some injury in her face or eyes, will be produced: and, if the Moon be then occidental, death will be occasioned by miscarriage in parturition, by inflammation, or by wounds. Such are the effects which ensue from these aspects made by Mars to the Moon; but, should he make them to Venus, death will then take place from fever, some latent disease, or sudden sickness. Saturn's aspect[125] to the Moon, when she is oriental, inflicts on the mother disease and death from extreme colds, or fevers; but, should the Moon be occidental, the danger arises from affections of the womb, or from consumption.

[Pg 80]In the investigation of all these circumstances, it is highly essential that the properties of the signs, in which are situated the stars actuating the influence, should be

also taken into consideration; and that, by day, the Sun and Venus should be principally observed; and by night, Saturn and the Moon.

If, however, after due attention has been paid to the foregoing points, a more specific inquiry still be demanded, it will then become necessary to assume the place allotted to the naternal or maternal condition, as the case may be, for an horoscope or ascendant, in order to pursue the investigation.[126] And by this means, which in this respect will answer the purpose of a nativity, all other particulars concerning the parents may be viewed succinctly; according to the general forms hereinafter given, as adapted for practice and applicable to all events.

In these and in all other cases, the mode, in which the influences are commixed, must be carefully kept in view; and it must be observed whether any particular stars possess, in themselves alone, the operative cause, or whether others share dominion with them; and it is then to be seen which among them all are more powerful, and which of them take the lead in establishing the event: so that due inference may be drawn agreeably to their several natures. And should the several stars, which may happen to be combined in dominion, be also equal in power, the diversity of their several natures, and the admixture of qualities thence arising, must then be taken into consideration; and, by fairly weighing this various admixture, the nature and quality of the future event may be apprehended.

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Stars, posited separately or at a distance from each other, distribute, at their appropriate times and periods, the events operated by each: thus the earlier events are brought about by stars which are more oriental than others, and the latter events by those which are more occidental. For it is indispensably requisite that the star, under the influence of which some particular event is expected to happen, should be originally[127] connected with the place to which the inquiry, concerning that event, is allotted; and, if such connection should not have existed, no effect of any importance

can possibly be produced; because a star does not exercise a vigorous influence, unless it was fully in communication at the beginning. But, however, the time, at which the effect will take place, is further regulated by the relative distance of the star, governing the effect, from the Sun and the angles of the world, as well as by its primary position of dominion.

CHAPTER VI

BROTHERS AND SISTERS

Under this head of inquiry, a general and cursory investigation, only, can be performed; and an attempt to dive into minute particulars would be fruitless, and would prove to be merely a vain search after things not open to discovery.[128]

The place, whence inferences are drawn respecting brothers and sisters, is to be considered as being applicable only to children of the same mother, and it is consequently, agreeably to nature, presumed to be the same as the maternal place; viz. the sign occupying the mid-heaven; or, by day, that which contains Venus, and, by night, the Moon. This sign and its succedent are considered as indicative of the mother and her children, and the same place is therefore properly allotted to brothers and sisters.

[Pg 82]Hence, provided this place be configurated with the benefics, there will be several brothers and sisters: the number of them depending upon the number and positions of such benefic stars, whether in bicorporeal signs, or in signs of single form.

If, however, the malefics should be in elevation over this place, or be hostilely situated in opposition thereto, the brothers and sisters will then be few in number; and this fewness especially follows when the malefics may surround the Sun. Should the hostile configuration be presented from the other angles,[129] and, particularly, if from

the ascendant, Saturn will then represent the elder born; and Mars, by inflicting death, will diminish the total number of brothers and sisters.[130]

Again, should the stars, which promise brethren, be favourably circumstanced as to their cosmical position, the brethren will be eminent and illustrious; but humble and obscure, if the cosmical position be of an adverse nature. If, also, the malefic stars should be in elevation over those which give brethren, the life of the brethren will then be only of short duration.

Stars, constituted masculinely, represent brothers; those femininely, sisters. The more oriental stars likewise represent the elder born; and those which are more occidental, the younger.

Moreover, should the stars, which give brethren, be harmoniously configurated with that one which has dominion of the sign allotted to brethren, the brethren will be mutually friendly and affectionate; and, if an harmonious configuration be also extended, by the same planets, to the part of fortune, the brethren will live together in communion. But, if the stars, which give brethren, should, on the contrary, be in situations unconnected with each other, or be in opposition, the brethren will then live at variance, mutually practising enmity and fraud.

CHAPTER VII

MALE OR FEMALE

After the indications which regard brothers and sisters have been investigated by the foregoing rules, consonant with nature and reason, the actual native, or the person to whom the scheme of nativity is specially appropriated, demands attention; and the first and most obvious inquiry is whether the said native will be male or female.

The consideration of this question rests not on a single basis, nor can [Pg 83]it be pursued in one sole direction only: it depends, on the contrary, upon the several situations of the two luminaries and the ascendant, and upon such planets as possess any prerogatives in the places of those situations; and all these circumstances should be specially observed at the time of conception, and, in a general manner also, at that of birth.

Observation of the said three places, and of the mode in which the planets ruling them may be constituted, is wholly indispensable: it must be seen whether all, or most of them, may be constituted masculinely or femininely; and prediction must, of course, be regulated in conformity with their disposition, so observed; as tending to produce a male or female birth.

The masculine or feminine nature of the stars is to be distinguished in the manner already pointed out in the commencement of this treatise.[131] For instance, by the nature of the signs in which they are situated, by their relative position to each other, and also by their position towards the earth; as when in the east, they are masculinely disposed, and, when in the west, femininely. Their relative position to the Sun also affords guidance in distinguishing them; since, if they should be matutine, they are considered to signify the male gender; and if vespertine, the female. Thus, from the sex chiefly prevalent, as observed by these rules, that of the native may be rationally inferred.

CHAPTER VIII

TWINS

With respect to the probability of the birth of twins, or a greater number at once, the same places must be observed, as those mentioned in the preceding chapter; that is to say, the places of both luminaries and the ascendant.

When two, or all three, of the said places may be situated in bicorporeal signs, births of this kind will occur, in consequence of the combination which then arises; especially, provided all the planets, which control those places, should also be similarly circumstanced: or although only some of them be posited in bicorporeal signs, while the rest may be placed by two or more together. Because even more than twins will be born, in a case wherein all the ruling places may be in bicorporeal signs, most of the planets being, at the same time, posited in the same way, and configurated with them. The number of children, however, to be produced at the birth, is to be inferred from the planet which exercises the right of determining the [Pg 84]number[132]: and the sex or sexes are to be predicted by means of the planets in configuration with the Sun, Moon, and ascendant.

And, should the position of the heavens be arranged so that the angle of the mid-heaven, and not that of the ascendant, may be connected with the luminaries, there will, in that case, be produced, almost always, twins; and sometimes even more.

To speak, however, more particularly, three males will be born, as in the nativity of the Anactores,[133] when Saturn, Jupiter, and Mars may be configurated with the places before appointed, in bicorporeal signs; and three females, as in the nativity of the Graces, when Venus and the Moon, with Mercury femininely constituted, may be configurated in like manner. When Saturn, Jupiter, and Venus may be configurated, two males and one female will be born; as in the nativity of the Dioscuri[134]; and, when Venus, the Moon, and Mars may be so configurated, two females and one male; as in the nativity of Ceres, Core, and Liber.[135]

In cases of this kind, however, it most usually happens that the conception has not been complete, and that the children are born with some remarkable imperfections or deformities. And, in some instances, owing to a certain concurrence of events, these numerous productions are quite extraordinary and amazing.

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CHAPTER IX

MONSTROUS OR DEFECTIVE BIRTHS

The same places, as those pointed out in the two chapters last preceding, are again to be considered, in inquiring into the probability of a monstrous or defective birth. For it will be found that, at a birth of this description, the luminaries are either cadent from the ascendant, or else not in any manner configurated with it; while, at the same time, the angles[136] are occupied by the malefics.

It therefore becomes necessary, when such a position of the heavens may occur at the time of birth, to observe forthwith the preceding new or full Moon[137] and its ruler; as well as the rulers of the luminaries at the said time of birth. For, if all the places, in which the rulers of the luminaries, and in which the Moon herself and Mercury may be situated, at the birth, or, if most of those places should be totally inconjunct and unconnected with the places of the said preceding new or full Moon and its ruler, the birth will then be monstrous. And if it should be further found, in addition to this absence of connection, that the luminaries may be also posited in quadrupedal or bestial signs, and the two malefics in angles, the birth will in that case not be human. And should the luminaries, when so circumstanced, be not at all supported by any benefic planet, but only by malefics, the creature born will be wholly indocile, wild, and of evil nature: if, however, they should receive support from Jupiter or Venus, the offspring will then be like that of dogs or cats, or other creatures held in religious veneration and used in worship[138]: but, if Mercury support the luminaries, it will resemble that of fowls, oxen, or swine, or, of other animals adapted to the service of mankind.

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When the luminaries may be in signs of human shape, while other circumstances in the scheme of the nativity may exist as before described, the creature born will then be human, or will partake of human nature, although it will still be defective in some peculiar quality. And, in order to ascertain the nature of that defect, the shape and form of the signs found on the angles occupied by the malefics, as well as of those wherein the luminaries are situated, must be taken into consideration: and, if in this instance also, no benefic planet should lend support to any one of the prescribed places, the offspring produced will be utterly void of reason, and indeed indefinable.[139] If, however, it should happen, that Jupiter or Venus [Pg 86]give support, the defect will be veiled by a specious outward appearance, similar to that of hermaphrodites, and of those persons called Harpocratiaci,[140] or others of like imperfections. And should Mercury also give support, in addition to that of Jupiter or Venus, the offspring will then become an interpreter of oracles and divinations; but, if Mercury support alone, it will be deaf and dumb,[141] although clever and ingenious in its intellect.

CHAPTER X

CHILDREN NOT REARED

The question which now remains to be considered, in order to complete the investigation of circumstances taking place simultaneously with the nativity, or immediately consequent thereon, is, whether the child, then born, will or will not be reared.

This inquiry is to be handled distinctly from that regarding the duration of life, although there is an apparent connection between them. The questions themselves are, indeed, similar; for it is much the same thing to inquire whether the child will be nurtured, or how long it will live; and the only distinction, between these two questions,

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arises from the different modes in which they are treated. For instance, the inquiry into the duration of life is to be pursued only in cases wherein there is allotted to the native some space of time, not less in duration than a solar period; that is to say, a year. Therefore, since time is also measured by smaller portions, such as months, days, and hours, and since the question, whether the native will or will not be reared, belongs to cases wherein some exuberance of evil influence threatens speedy destruction, and where life is not likely to endure throughout a whole year, the inquiry into the duration of life must consequently involve a more multifarious consideration, than that which relates to rearing; which may be at once disposed of, in a more general and summary manner.

Thus, if either of the two luminaries be in an angle, and one of the malefics be either in conjunction with that luminary, or else distant in longitude from each luminary, in an exactly equal space; so as to form the point of junction of two equal sides of a triangle, of which sides the two luminaries form the extremities, while, at the same time, no benefic star may partake in the configuration, and while the rulers [Pg 87]of the luminaries may be also posited in places belonging to, or controlled by, the malefics; the child, then born, will not be susceptible of nurture, but will immediately perish.

Should the configuration, made between the malefic planet and the luminaries, not exist precisely in the mode just mentioned; that is to say, should the said planet not be equally distant from both luminaries, so as to form the point of junction of two equal sides of a triangle; yet should it then happen that the rays of two malefics may nearly approach the places of the two luminaries, casting an injurious influence either on both, or only one of them, and if both the said malefics be together succedent, or in opposition, to the luminaries, or if one of them be succedent, and the other in opposition, or even if only one may particularly afflict one of the luminaries, then, in any such case, no duration of life will be allotted to the child: for the supremacy of the power of the

malefics extinguishes the influence favourable to human nature, and tending to prolong existence.

Mars is exceedingly pernicious when succedent to the Sun, and Saturn when succedent to the Moon. But a converse effect takes place when either of these planets may be in opposition to the Sun or Moon, or in elevation above them; for the Sun will then be afflicted by Saturn, and the Moon by Mars; and especially so, provided the said planets should have local prerogatives in the signs containing the luminaries, or in the sign on the ascendant. And, should a double opposition exist, by the circumstance of the luminaries being placed in two opposite angles, and by the two malefics being each so posited as to be equally distant from each luminary, the child will be born almost, if not quite, dead. Nevertheless, if the luminaries should be separating from, or be otherwise configurated with benefic planets, whose rays may be projected to parts preceding the said luminaries, the child will then live as many days, or hours, as there are degrees, numbered between the prorogator[142] and the nearest malefic.

If malefics should cast their rays to parts preceding the luminaries, and benefics to parts following them, the child will be abandoned at its birth; but will afterwards meet with adoption, and will live. Yet, if the malefics should be in elevation above those benefics which are thus configurated, the child, so adopted, will lead a life of misery and servitude: if, on the contrary, the benefics should be in elevation, then whoever may adopt the deserted child will supply the place of its parents. And, provided a benefic planet should either ascend with, or near in succession to the Moon, or be applying to her, [Pg 88]and one of the malefics be occidental, the child's own parents will, in that case, take it again under their protection.

Rules similar to the foregoing are to be observed, when more than one child is born; for, if any one of those planets, which may be configurated towards the production of two, or even more children, should be under the west, the children will be born half dead, or deformed, and imperfect in body. And, if the planet so situated should also be

beneath the malefics, the children will not be susceptible of nurture, or their life will be of the shortest span.

CHAPTER XI

THE DURATION OF LIFE

Of all events whatsoever, which take place after birth, the most essential is the continuance of life: and as it is, of course, useless to consider, in cases wherein the life of a child does not extend to the period of one year, what other events contingent on its birth might otherwise have subsequently happened, the inquiry into the duration of life consequently takes precedence of all other questions, as to the events subsequent to the birth.

The discussion of this inquiry is by no means simple, nor easy of execution; it is conducted in a diversified process, by means of the governance of the ruling places. And the method now about to be laid down seems, of all others, the most consonant with reason, and with nature: because the influence of the prorogatory places, as well as of the rulers of those places, and the disposal of the anæretic[143] places or stars, perform the whole operation of regulating the duration of life. Each of these influences is to be distinguished in the mode pointed out in the chapters immediately ensuing.

CHAPTER XII

THE PROROGATORY PLACES

Firstly, those places, only, are to be deemed prorogatory, to which the future assumption of the dominion of prorogation exclusively belongs. These several places

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are the sign on the angle of the ascendant, from the fifth degree above the horizon, to the twenty-fifth degree below it; the thirty degrees in dexter sextile thereto, constituting the eleventh house, called the Good Dæmon; also the thirty degrees in dexter quartile, forming the mid-heaven above the earth; those in dexter [Pg 89]trine making the ninth house, called God; and lastly, those in opposition, belonging to the angle of the west.

Secondly, among these places, the degrees which constitute the mid-heaven are entitled to preference, as being of a more potent and paramount influence: the degrees in the ascendant are next in virtue; then the degrees in the eleventh house succedent to the mid-heaven; then those in the angle of the west; and, lastly, those in the ninth house, which precedes the mid-heaven.

No degrees under the earth are, in any manner, eligible to the dominion now in question; except such only as enter into light actually above the succedent, or, in other words, with the ascendant. And any sign, although it may be above the earth, is still incompetent to partake in this dominion, if it be inconjunct with the ascendant: hence the sign which precedes the ascendant, and constitutes the twelfth house (called that of the Evil Dæmon), is incompetent; and not only for the above reason, but also because it is cadent, and because the beams cast by the stars posited therein, towards the earth, are impaired by the thick and dark exhalations arising from the earth's vapours, which produce an unnatural colour and magnitude in the appearance of stars so posited, confusing, and in some measure annihilating, their beams.

Thus far with regard to the places of prorogation.

CHAPTER XIII

THE NUMBER OF PROROGATORS, AND
ALSO THE PART OF FORTUNE

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After due attention has been given to the instructions in the preceding chapter, the Sun, the Moon, the Ascendant, and the part of Fortune, are to be considered as the four principally liable to be elected to the office of prorogator; and their positions, together with those of such planets as rule in the places of their positions, are to be observed.

The part of Fortune is ascertained by computing the number of degrees between the Sun and the Moon; and it is placed at an equal number of degrees distant from the ascendant, in the order of the signs. It is in all cases, both by night and day, to be so computed and set down, that the Moon may hold with it the same relation as that which the Sun may hold with the ascendant; and it thus becomes, as it were, a lunar horoscope or ascendant.[144]

[Pg 90]Among the candidates for prorogation, as before-mentioned, by day the Sun is to be preferred, provided he be situated in a prorogatory place; and, if not, the Moon; but if the Moon, also, should not be so situated, then that planet is to be elected which may have most claims to dominion, in reference to the Sun, the antecedent new Moon, and the ascendant; that is to say, when such planet may be found to have dominion over any one of the places where these are situated, by at least three prorogatives, if not more; the whole number being five. If, however, no planet should be found so circumstanced, the Ascendant is then to be taken.[Pg 91]

By night, the Moon is to be elected as prorogator, provided, in like manner, she should be in some prorogatory place; and if she be not, the Sun: if he also be not in any prorogatory place, then that planet which may have most rights of dominion in reference to the Moon,[145] and the antecedent full Moon and the part of Fortune. But, if there be no planet claiming dominion in the mode prescribed, the Ascendant must be taken, in case a new Moon had last preceded the birth; but, if a full Moon, the part of Fortune.

If the two luminaries, and also some ruling planet of appropriate condition, should be each posited in a prorogatory place, then, provided one luminary may be found to occupy some place more important and influential than the others, that luminary must

be chosen; but should the ruling planet occupy the stronger place, and have prorogatives of dominion suitable to the conditions of both luminaries, the planet must then be preferred to either of them.[146]

CHAPTER XIV

NUMBER OF THE MODES OF PROROGATION

When the prorogator has been determined as above directed, it is also necessary to take into consideration the two modes of prorogation; one into succeeding signs, under the projection of rays, as it is called; and, when the prorogator may be in an oriental place, that is to say, in any place between the mid-heaven and the ascendant, this mode only is to be used. The other mode extends into signs preceding the prorogator, according to what is called horary proportion[147]; and, in cases when the prorogator may be situated in any place receding from the mid-heaven, or, in other words, between the mid-heaven and the angle of the west, both modes of prorogation are to be adopted.

It is next to be observed, that certain degrees are anæretic; though, in the prorogation made into signs preceding, the only degree which is strictly anæretic is that of the western horizon; and it becomes so [Pg 92]because it obscures the lord of life; while other degrees, of stars meeting with or testifying to the prorogator, both take away from and add to the aggregate amount of the prorogation, which would otherwise continue until the descension or setting of the prorogator. Of these last-mentioned degrees, however, there are none properly anæretic; since they are not borne to the prorogatory place, but, on the contrary, that place is carried to their positions.[148] In this manner the benefics increase the prorogation, but the malefics diminish it; and Mercury assists the influence of either party with which he may be configurated. The amount of the increase or diminution is indicated by the degree, in which each star, so operating, is exactly

situated; for the number of years will depend upon, and correspond with, the horary times[149] proper to each degree; and if the birth be by day, care must be taken to calculate the diurnal horary times; if by night, the nocturnal. These directions are to be understood as applicable to instances wherein the degrees in question may be in the ascendant; if farther advanced, a deduction proportionate to the distance is to be made, unless they should be on the occidental horizon, in which case there can be no remainder.

But, in the prorogation made into succeeding signs, the places of the malefics, Saturn and Mars, are anæretic, whether meeting the prorogator bodily, or by emission of rays in quartile, from either side, or in opposition: they are also sometimes anæretic, by a sextile ray, if in a sign of equal power, obeying or beholding the sign of the prorogator. And even the mere degree, in signs following, in quartile with the [Pg 93]prorogatory place, as also the degree in sextile, if badly afflicted, which is sometimes the case in signs of long ascension, and, still further, the degree in trine, if in signs of short ascension, are all anæretic: so also is the Sun's place, should the Moon be prorogatory. But, although the meetings, which occur in the course of prorogation thus made, have, respectively, some of them an anæretic, and other a preservative, power, in consequence of their occurring by means of an actual transmission to the prorogatory place[150]; yet their anæretic tendency is not always effectual, but only in cases where the places, so brought to the prorogatory place, may be badly afflicted. For should those places be situated within the terms of a benefic, the operation of their anæretic degree becomes impeded; and it will likewise be impeded, if either of the benefics should cast a ray in quartile, trine, or opposition,[151] to the said anæretic degree itself, or to some other degree near in succession, and not farther distant from it than twelve degrees, if the benefic be Jupiter; nor than eight, if Venus: the like impediment will also subsist, if both the prorogator and itsopponent[152] should be bodies,[153] and not have the same latitude.

Therefore, whenever there may be found two or more conflicting configurations, auxiliary on the one hand, and hostile on the other, due observation must be made to ascertain which party surpasses the other, in power as well as in number. The pre-eminence in number will be, of course, obvious, from the greater number[154] on one side than on the other; but, for pre-eminence in power, it must be seen whether the stars, auxiliary or hostile as the case may be, are, on the one side, in places appropriate to themselves, while they are not so on the other; and especially whether those on the one side may be oriental, and those on the other occidental. It is also to be observed, in all cases, that not any one of such stars, whether hostile or auxiliary, is to be left out of the present calculation, on account [Pg 94]of its casual position under the sunbeams.[155] This rule must be particularly attended to, because, even though the Moon be not prorogatory, the solar place itself becomes anæretic, if shackled by the simultaneous presence of a malefic, and not restored to freedom of operation by any benefic.

The number of years, depending on the distances between the prorogatory and anæretic places, cannot be always gathered simply and at once from the ascensional times[156] of each respective degree; but only in cases when the ascendant itself, or some other specific degree or body, actually ascending in the oriental horizon, may possess the prorogation. For, if it be desired to calculate agreeably to nature, every process of calculation that can be adopted must be directed to the attainment of one object; that is to say, to ascertain after how many equatorial times[157] the place of the succeeding body, or degree, will arrive at the position preoccupied at the birth by the preceding body, or degree: and, as equatorial time transits equally both the horizon and the meridian, the places in question[158] must be considered, in respect of their proportionate distances from both these; each equatorial degree[159] being taken to signify one solar year.

In conformity with the foregoing remarks, when it may happen that the prorogatory and preceding place may be actually on the oriental horizon, it will be proper to reckon, at once, the ascensional times which may intervene until the meeting of the degrees;

because, after the same number of equatorial times, the anæreta will arrive at the prorogatory place; that is to say, at the oriental horizon. Should the prorogatory place be found on the meridian, the whole number of degrees by right ascension, in which the whole intercepted arc will transit the meridian, must then be taken. And if the prorogatory place be on the occidental horizon, the number of descensions, in which every degree of the distance will be carried down (or, in other words, the number of ascensions, in which their opposite degrees will ascend), is in that case to be reckoned.[160]

[Pg 95]When, however, a prorogatory and preceding place may not be situated on any one of the three aforesaid points, but in some intermediate station, it must be observed that *other* times[161] will then bring the succeeding place to the preceding one; and *not* the times of ascension or descension, or transit of the mid-heaven, as above spoken of. For any places whatever, which have one particular position, on the same degree, in regard to the horizon and meridian, are alike and identical. This is the case, for instance, with all places lying on any one of those semicircles which are drawn through the arcs of the meridian and horizon; and each of these semicircles (all of which have position at the same equal distance from each other) marks one temporal hour[162]; and, as the time occupied in proceeding through the places[163] above described, and arriving at the same position of the horizon and meridian, is rendered unequal to and different from the time of transits in the zodiac; so, also, the transits of other spaces are made, agreeably to their position, in time again distinct from this.

There is, however, a method by which the proportion of time, occupied in the progress of a succeeding place to a prorogatory and preceding place, in whatever position, whether oriental, meridianal, or occidental, or any other, may be easily calculated. It is as follows:—

When it has been ascertained what degree of the zodiac is on the [Pg 96]mid-heaven, as also which are the preceding and succeeding degrees, the period of whose meeting

is to be calculated, the position of the preceding degree, and its distance in temporal hours from the meridian, are next to be noted; because any part of the zodiac, on becoming distant from the meridian in the same temporal hours, must fall on the same individual semicircle.[164] For ascertaining this distance, the number of ascensions, in a right sphere, found in the intermediate space between the said preceding degree and the mid-heaven, either above or under the earth, is to be divided by the number of the diurnal or nocturnal horary times of the said preceding degree: for instance, if that degree be above the earth, by its diurnal horary times; and, by its nocturnal, if it be under the earth. It is then to be discovered in what number of equatorial times the succeeding degree will be distant from the same meridian, by as many similar temporal hours as those by which the preceding degree is distant from it. And, to effect this, the hours in question must be noted, and it must first be observed, by the right ascensions again, how many equatorial times the succeeding degree, at its original position, is distant from the degree on the mid-heaven; and then it must be seen how many equatorial times it will be distant, on coming to the preceding degree's distance in temporal hours from the said mid-heaven: this will be found, by multiplying those hours by the succeeding degree's horary times; diurnal, if the future position be above the earth, and nocturnal if under; and the difference in amount, of these two distances, in equatorial times, will present the number of years inquired for.

CHAPTER XV

EXEMPLIFICATION

In order to exemplify the foregoing instructions, let the first point of Aries be supposed as the preceding place, and the first point in Gemini the succeeding; and let the latitude of the country, to which the operation relates, be such as will cause the longest day to consist of fourteen hours[165]; and where the horary magnitude of the beginning of Gemini will be about seventeen equatorial times.[166]

Let the first point of Aries be first placed on the ascendant, so that the beginning of Capricorn may be on the mid-heaven above the earth, and [Pg 97]the first point of Gemini be distant from the said mid-heaven 140 equatorial times.[167] Now, since the first point of Aries is distant six temporal hours from the mid-heaven above the earth, the times of that distance will be found, by multiplying the said six hours by the seventeen equatorial times of the horary magnitude of the first point of Gemini, to be 102.[168] The whole sum of the distance to the mid-heaven above the earth, is 148 times; and as 148 times exceed 102 by 46, the succeeding place will consequently devolve into the preceding place after 46 times (being the amount of the times of ascension of Aries and Taurus[169]); since, in this instance, the prorogatory place is established in the ascendant.

In like manner, let the first point of Aries be next placed on the mid-heaven, culminating; so that the first point of Gemini, in its first position, may be distant from the said mid-heaven 58 equatorial times.[170] Now, as it is required to bring the first point of Gemini, in its second position, to the mid-heaven, the whole distance is to be reckoned, viz. 58 times, in which Aries and Taurus pass the mid-heaven; because, again, the prorogatory place was culminating.[171]

In the same way, let the first point of Aries be descending[172]; so that the beginning of Cancer may occupy the mid-heaven, and the first point of Gemini precede the mid-heaven at the distance of 32 equatorial times.[173] Therefore, as the first point of Aries is on the west, and again distant six temporal hours from the meridian, let these six hours be multiplied by the seventeen times; which will produce 102, making the sum of the distance[174] of the first point of Gemini, at its future descension, from the meridian.[175] But, as the first point of Gemini, at its first position, was already distant from the meridian 32 times; which number 102 exceed by 70; it [Pg 98]will consequently arrive at its descension after 70 times, the amount of the excess; in which

space Aries and Taurus will have descended, and their opposite signs Libra and Scorpio arisen.[176]

Again, let the first point of Aries have another position, not in any angle,[177] but, for instance, at the distance of three temporal hours past the meridian; so that the 18th degree of Taurus may be on the mid-heaven, and the first point of Gemini be approaching the mid-heaven, at the distance of thirteen equatorial times. The seventeen times must, therefore, be again multiplied by the three hours, and the first point of Gemini, at its second position, will be found to be past the meridian, at the distance of 51 times.[178] The distance of 13 times of the first position and 51 times of the second position are then both to be taken; and they will produce 64 times. In the former instances the prorogatory place performed in the same succession; viz. occupying 46 times in coming to the ascendant, 58 in coming to the mid-heaven, and 70 in coming to the west; so that the present number of times, depending on the intermediate position between the mid-heaven and the west, and being 64, also differs from each of the other numbers, in proportion to the three hours' difference of position. For, in the other cases which proceeded by quadrants,[179] according to the angles, the times progressively differed by twelve, but, in the present case of a minor distance of three hours, they differ by six.[180]

There is, however, another method which may be used, and which is still more simple; for instance, should the preceding degree be on the ascendant, the following intermediate times of ascension,[181] between it and the succeeding degree, may be reckoned; should it be on the mid-heaven, the times of ascension must be reckoned on a right sphere; and, if it be on the west, descending, the intermediate times of descension[182] are to be reckoned. But, should the preceding degree be between any two of these angles, as, for instance, at the distance of Aries, just spoken of, the proper times for each angle must first be considered. And, since the first point of Aries was assigned a position between the two angles of the mid-heaven and the west, the proper times [Pg

99]of the distances from these angles to the first point of Gemini[183] would be found to be 58 from the mid-heaven, and 70 from the west. The distances, in temporal hours, of the preceding degree from each of these angles, are then to be ascertained; and whatever proportion these same temporal hours, contained in such distances between the said preceding degree and each angle, may bear to the temporal hours of the whole quadrant, the same proportion, out of the excess of the times of distance of one angle over those of the other, is either to be added to, or deducted from, the actual number of times of the respective angles. For instance, in the example before set forth, 70 times exceed 58 times by 12; and the preceding place was distant from the angles three equal temporal hours, which are the half of six, the number belonging to the whole quadrant. Now, three being the half of six, and 12 being the amount of the excess, the half of 12 is therefore to be taken, giving 6 to be either added to the 58 times, or subtracted from the 70: thus, in either way, producing 64, the required number of times.

If, however, the preceding place should be distant from either angle two temporal hours, which are the third part of 6, then, in that case, the third part of 12, the amount of the excess, must be taken, viz. 4: and, if the said two hours be the distance, as calculated from the mid-heaven, the said 4 times are to be added to the 58 times; but, if it be the distance from the occidental angle, the 4 times are to be subtracted from the 70.

In conformity with these rules now laid down, the amount of the times must necessarily be obtained.[184]

[Pg 100]The anæretic and critical influences of all meetings or descensions of prorogators[185] remain to be determined; beginning, in due order, with such as are accomplished in the shortest time. And whatever else may happen, by means of any affliction or assistance offered (in the manner heretofore prescribed) during the actual transit of the meeting, is also to be decided on, as well as whatever may occur through other circumstances, arising out of the ingresses taking place at the time: because,

should the places of both the significators be afflicted, and should the transit of the stars, at the then existing ingress, operate injuriously on the chief ruling places, it is then altogether probable that death will ensue;[186] and, even though one of the places[187] may be disposed favourably to human nature, the crisis will still be important and perilous; but, if both the places be so disposed favourably, some debility only, or transient malady, or hurt, will then happen. It is, however, necessary in these cases, to consider also what familiarity, or analogy, the peculiar properties of the places, thus meeting, may bear to the circumstances of the nativity.

In order to obviate the doubts which frequently arise, as to the particular star or place to which the anæretic dominion ought to be assigned, all the meetings should be duly contemplated and considered, each by each; and thus, after considering those chiefly corresponding with the events already past, and with the future events about to follow, or with the whole altogether, it will be practicable to found an observation on the equality or inequality of their influence.

CHAPTER XVI

THE FORM AND TEMPERAMENT OF THE BODY

The matters affecting and regulating the duration of life have now been disposed of; and it becomes proper to enter into further particulars, commencing, in due order, with the figure and conformation of the body; because Nature forms and moulds the body before she inspires it with a soul. In fact, the body, in its materiality, is endowed with suitable constitutional properties begotten with it, and almost apparent from its very birth; but the soul afterwards, and by degrees, develops the [Pg 101]appropriate qualities which it derives from the primary cause, and which become known much later than external attributes, and in process of time only.

In regard to the body, therefore, it is in all cases requisite to observe the oriental horizon, and to ascertain what planets may preside or have dominion over it, and also to pay particular attention to the Moon. For, from both these places,[188] and from their rulers, as well as from the natural formation and contemperament appertaining to every species of the human race, and also from the figure ascribed to those fixed stars which may be co-ascending, the conformation of the body is to be inferred. The planets possessing dominion have the chief influence, and the proper qualities of their places co-operate with them. And, in order to simplify these instructions, and as the planets are first to be treated of, each planet is individually to be considered as follows, viz.:

Saturn, when oriental, acts on the personal figure by producing a yellowish complexion and a good constitution; with black and curled hair, a broad and stout chest, eyes of ordinary quality, and a proportionate size of body, the temperament of which is compounded principally of moisture and cold. Should he be occidental, he makes the personal figure black or dark, thin and small, with scanty hair on the head; the body without hair, but well shaped; the eyes black or dark; and the bodily temperament consisting chiefly of dryness and cold.

Jupiter ruling, when oriental, makes the person white or fair, with a clear complexion, moderate growth of hair, and large eyes, and of good and dignified stature; the temperament being chiefly of heat and moisture. When occidental, he still causes a fair complexion, but not of equal clearness; and he produces long straight hair, with baldness on the forehead or on the crown of the head; and he then also gives a middle stature to the body, with a temperament of more moisture.

Mars, ascending, gives a fair ruddiness to the person, with large size, a healthy constitution, blue or grey eyes, a sturdy figure, and a moderate growth of hair, with a temperament principally of heat and dryness. When occidental, he makes the complexion simply ruddy, and the personal figure of moderate stature, with small eyes;

the body without hair, and the hair of the head light or red, and straight; the bodily temperament being chiefly dry.

Venus operates in a manner similar to that of Jupiter, but, at the same time, more becomingly and more gracefully; producing qualities of a nature more applicable to women and female beauty, such as softness, juiciness, and greater delicacy. She also peculiarly makes the eyes beautiful, and renders them of an azure tint.

Mercury, when oriental, makes the personal figure of a yellowish complexion, and of stature proportionate and well shaped, with small [Pg 102]eyes and a moderate growth of hair; and the bodily temperament is chiefly hot. If occidental, he gives a complexion white or fair, but not altogether clear; straight, dark hair, a thin and slight figure, some squint or defect in the eyes, and a long visage[189] faintly red; the temperament being chiefly dry.

The Sun and Moon, when configurated with any one of the planets, also co-operate: the Sun adds a greater nobleness to the figure, and increases the healthiness of the constitution; and the Moon, especially when holding or delaying her separation,[190] generally contributes better proportion and greater delicacy of figure, and greater moisture of temperament; but, at the same time, her influence in this latter particular is adapted to the proper ratio of her illumination; as referred to in the modes of temperament mentioned in the beginning of this treatise.[191]

Again, should the planets be matutine, and fully conspicuous,[192] they will cause the body to be large; if in their first station, they will make it strong and vigorous; if they should precede or be in advance, it will be disproportionate; if in their second station, it will be weaker, and, if vespertine, altogether mean and subservient to evil treatment and oppression. At the same time, the places of the planets,[193] as has been already said, co-operate especially in producing the shape of the personal figure, and contribute also towards the temperament.

And further, it is the general tendency of the quadrant comprised between the vernal equinox and the summer tropic to produce good complexions, advantageous stature, fine constitutions, and fine eyes; with a temperament abounding in heat and moisture. The quadrant from the summer tropic to the autumnal equinox tends to produce an ordinary complexion, proportionate stature, a healthy constitution, large eyes, a stout person, with curled hair, and a temperament abounding in heat and dryness. The quadrant from the autumnal equinox to the winter tropic causes yellowish complexions, slender, thin, and sickly persons, with a moderate growth of hair, fine eyes, and a temperament abundantly dry and cold. The other quadrant, from the winter tropic to the vernal equinox, gives a dark complexion, proper stature, straight hair on the head and none on the body, a goodly figure, and a temperament abounding in cold and moisture.[Pg 103]

To speak, however, more particularly, all constellations of human form, both those within and those without the zodiac, act in favour of giving a handsome shape to the body, and due proportion to the figure; while those not of human form vary its due proportions, and incline it towards their own shape; assimilating it, in some measure, to their own peculiarities, either by enlarging or diminishing its size, by giving it additional strength or weakness, or by otherwise improving or disfiguring it. Thus, for example, Leo, Virgo, and Sagittarius enlarge the person; and Pisces, Cancer, and Capricorn tend to make it diminutive; and thus, again, the upper and anterior parts of Aries, Taurus, and Leo increase its strength and their lower and posterior parts render it weaker: while, on the other hand, Sagittarius, Scorpio, and Gemini act conversely; for their anterior parts produce greater debility, and their posterior parts greater vigour. In like manner, Virgo, Libra, and Sagittarius contribute to render the person handsome and well-proportioned; and Scorpio, Pisces, and Taurus incline it to be misshapen and disfigured.

The other constellations[194] also operate on similar principles; and all these influences it is necessary to bear in mind, in order that the peculiar properties, observed

in their joint temperament, may be so compounded as to authorize an inference therefrom, concerning the form and temperament of the body.

CHAPTER XVII

THE HURTS, INJURIES, AND DISEASES OF THE BODY

Next in succession to the foregoing chapter, the circumstances relating to bodily hurts, injuries, and diseases, claim to be discussed; and they require to be considered in the following mode.

For the investigation of these circumstances, the two angles on the horizon, both the ascendant and the western, must in all cases be remarked; but more especially the western angle and its preceding house,[195] which is inconjunct with the ascendant. After these angles have been noted, it must be observed in what manner the malefic planets may be configurated with them: for, if both the malefics, or even if one of them, should be stationed bodily on any of the successive degrees composing the said angles, or be configurated with such degrees in quartile or in opposition, some bodily disorders or injuries will attach to the native or person then born: and this will especially happen if, also, both the luminaries, either together or in opposition, or even if one of them, should be angularly posited in the manner [Pg 104]described. Because, in such a case, not only a malefic which may have ascended in succession to the luminaries, but also any one which may have pre-ascended, if placed in an angle, has power to inflict certain diseases and injuries, such as may be indicated by the places of the horizon and of the signs, as well as by the natures of the planets themselves; whether malefics, or others evilly afflicted and configurated with them.

Such parts of the signs, as contain the afflicted part of the horizon, will show in what part of the body the misfortune will exist, whether it be a hurt, or disease, or both: and

the natures of the planets, in operating the misfortune, also regulate its particular form or species. For, among the chief parts of the human body, Saturn rules the right ear, the spleen, the bladder, the phlegm, and the bones; Jupiter governs the hand, the lungs, the arteries, and the seed; Mars, the left ear, the kidneys, the veins, and the privities; the Sun rules the eyes, the brain, the heart, the sinews or nerves, and all the right side; Venus, the nostrils, the liver, and the flesh; Mercury, the speech, the understanding, the bile, the tongue, and the fundament; and the Moon governs the palate, the throat, the stomach, the belly, the womb, and all the left parts.

It generally happens that some casual hurt, or injurious affection of the body, is the utmost that takes effect when the malefics may be oriental, and that considerable diseases occur only when the malefics may be occidental. And a hurt is distinct from a disease, inasmuch as the pain, which it induces at the time, is not afterwards continued; while a disease is, on the other hand, imposed on the sufferer either constantly or at repeated intervals. These remarks are applicable to all cases; but, in order to inquire particularly into the nature of the hurt or disease, a further attention must be paid to the figures, or schemes, with which the effects, about to be produced, will for the most part correspond in character.

For instance, blindness of one eye will ensue, when the Moon may be in the before-mentioned angles, either operating her conjunction, or being at the full: it will also happen should she be configurated with the Sun in any other proportional aspect, and be at the same time connected with any one of the nebulous collections in the zodiac; such as the cloudy spot of Cancer, the Pleiades of Taurus, the arrow-head of Sagittarius, the sting of Scorpio, the parts about the mane of Leo, or the urn of Aquarius. Moreover, both eyes will be injured should the Moon be in an angle, and in her decrease, and Mars or Saturn, being matutine, ascend in succession to her; or, again, if the Sun be in an angle, and these planets pre-ascend before him, and be configurated with both luminaries, whether the luminaries be in one and the same sign, or in opposition;

provided also the said planets, although oriental of the Sun, be occidental of the Moon. Under these circumstances, therefore, Mars will cause blindness by a stroke or blow, or by the sword or by burning; and, if he be configurated with [Pg 105]Mercury, it will be effected either in a place of exercise or sport, or by the assault of robbers. Saturn, however, under the same circumstances, produces blindness by cataract, or cold, by a white film, or by other similar disorders.

Venus, if in one of the angles before-mentioned, and especially if she be in that of the west, and Saturn be in conjunction or in configuration with her, or be changing place with her,[196] while Mars, at the same time, is in elevation above her, or in opposition to her, will produce impotence in the native, if a male; and, if a female, will render her liable to abortion, or to produce children stillborn, or not capable of being extracted except in mangled parts. Such misfortunes especially happen under Cancer, Virgo, and Capricorn; even though the Moon may be in the ascendant, in conjunction with Mars. And if, under the same circumstances, Venus be also configurated with Mercury, as well as Saturn, Mars again being in elevation above her, or in opposition to her, the native will be either an eunuch or hermaphrodite, or devoid of the natural channels and vents. And, when these positions occur, should the Sun also partake in the configuration, the luminaries and Venus being all masculinely constituted, the Moon in her decrease, and the malefics brought up in the degrees next successively ascending, the males will be born maimed or crippled, or injured in their private members (particularly under Aries, Leo, Scorpio, Capricorn, and Aquarius); and the females will remain childless and unprolific. And it also occasionally happens that the natives, under such a configuration, are likewise injured in the face or eyes.

If Saturn and Mercury, in conjunction with the Sun, be in the before-mentioned angles, the native will have some defect in the tongue, and stammer or speak with difficulty: especially if Mercury be occidental, and both he and Saturn configurated with the Moon. Should Mars, however, be found together with them, he will for the

most part remove the defect in the tongue, after the Moon shall have completed her approach to him.

Further, should the malefics be in angles, and the luminaries, either together or in opposition, be brought up to them; or, if the malefics be brought up to the luminaries, especially when the Moon may be in her nodes, or in her bend,[197] or in obnoxious signs, such as Aries, Taurus, Cancer, Scorpio, and Capricorn, the body will then be afflicted with excrescences, distortions, lameness or paralysis.

If the malefics be in conjunction with the luminaries, the calamity will take effect from the very moment of birth: but should they be in the mid-heaven, in elevation above the luminaries, or in opposition to each other, it will then arise out of some great and dangerous accident; [Pg 106]such as a fall from some height or precipice, an attack of robbers, or of quadrupeds. And thus, if Mars hold dominion, he will produce the misfortune by means of fire or wounds, through quarrels, or by robbers; and if Saturn, it will be caused by a fall, by shipwreck, or by convulsive fits or spasms.

The minor bodily disorders mostly occur on the Moon's being posited in a tropical or equinoctial sign; and, if in that of the vernal equinox, these disorders usually arise from the white leprosy; in that of the summer tropic, from tetters; in that of the autumnal equinox, from leprosy; and in that of the winter tropic, from the eruption of pimples, and similar inconveniences.

Considerable diseases, however, take effect when the malefics may be configurated in the same situations as those before prescribed, yet differing in one respect; that is to say, being occidental of the Sun and oriental of the Moon. In such cases, Saturn will generally produce cold in the bowels, excessive phlegm, rheumatism, emaciation, sickliness, jaundice, dysentery, cough, obstruction, colic, or scurvy; and, in women, besides these diseases, he produces complaints of the womb. Mars will cause expectoration of blood, atrabilarious attacks, pulmonary complaints, sores, and diseases in the private parts (which will be rendered still more painful by surgical burning or

incision), such as fistula, hæmorrhoids, or knots in the fundament, and also inflamed and putrifying ulcers. In women, to these calamities, he adds abortion, excision of the fœtus or its mortification.

And, even though these planets should not be properly configurated towards the particular parts of the body, their qualities will still operate. Mercury also will act with them, and contribute to the increase of the evil: thus, if he be in familiarity with Saturn, he will much augment the coldness, and promote the continuance of rheumatism, and the disturbance of the fluids; especially in the chest, throat, and stomach. If in familiarity with Mars, he will tend to produce greater dryness, and will increase ulcers, abscesses, loss of hair, scarified sores, erysipelas, tetters, blackness of bile, insanity, epilepsy,[198] and similar disorders.

Some of the properties, peculiar to disease, arise out of the various character of the signs which may contain the above mentioned configurations in the two angles. Thus Cancer, Capricorn, and Pisces, and, in short, all signs ascribed to terrestrial animals and fishes, appropriately cause diseases of putridity, tetters, excoriation, scrofula, fistula, leprosy, and the like; while Sagittarius and Gemini produce disease by falling fits and epilepsy. And if the planets happen to be posited in the latter degrees of the signs containing them, the [Pg 107]extremities of the body will then be chiefly affected by the disease or hurt; which will arise from humours or accidents, producing leprosy, gout, or other infirmities, in the hands and feet.

Under the circumstances above detailed, the disease or hurt will be incurable, provided there shall be not one of the benefics in configuration with the malefics which effect the evil, nor with the luminaries posited in angles; and even though the benefics may be so configurated, the misfortune will still be incapable of remedy, if the malefics be well fortified, and in elevation above them.

Should the benefics, however, hold principal situations, and be in elevation above the obnoxious malefics, the disease or hurt will then be moderate, and have neither

deformity nor disgrace attached to it; and it will sometimes be altogether prevented and set aside, if the benefics be oriental. Jupiter, for instance, by means of human aid, such as wealth or rank can command, will conceal and soothe hurts and diseases; and, if Mercury be joined with him, the assistance will be further improved by the addition of skilful physicians and good medicine. Venus, likewise, through the mediation of deities and oracles, will cause hurts to appear in a manner neither ungraceful nor unbecoming, and will ameliorate diseases by medicines granted by the gods.

Lastly, should Saturn be present in the configuration, the afflicted persons will move abroad to show their maladies, and to complain; and if Mercury also be present, they will do so for the sake of deriving support and profit from the exhibition.

CHAPTER XVIII

THE QUALITY OF THE MIND

The consideration of circumstances applicable to the body is practised under the foregoing rules.

Of the spiritual qualities, however, all those which are national and intellectual are contemplated by the situation of Mercury; while all others, which regard the mere sensitive faculties, and are independent of reason, are considered rather by other luminaries of a less subtle constitution and more ponderous body; for instance, by the Moon and such stars as she may be configurated with, as well by separation,[199] as by application.

Now the mind is liable to impulse in a multiplicity of directions, and the investigation of them cannot be summarily nor hastily performed, but must be conducted by means of many various observations: for the [Pg 108]different qualities of

the signs, containing Mercury and the Moon, or such stars as hold any influence over those two, are well competent to contribute towards the properties of the mind; so likewise are the configurations made with the Sun and the angles, by stars bearing any relation to the point in question; besides, also, the peculiar nature exercised by each star in operating upon the mental movements.

Thus, the tropical signs generally dispose the mind to enter much into political matters, rendering it eager to engage in public and turbulent affairs, fond of distinction, and busy in theology; at the same time, ingenious, acute, inquisitive, inventive, speculative, and studious of astronomy and divination.

Bicorporeal signs render the mind variable, versatile, not easy to be understood, volatile, and unsteady; inclined to duplicity, amorous, wily, fond of music, careless, full of expedients, and regretful.[200]

Fixed signs make the mind just, uncompromising, constant, firm of purpose, prudent, patient, industrious, strict, chaste, mindful of injuries, steady in pursuing its object, contentious, desirous of honour, seditious, avaricious, and pertinacious.

Oriental positions, and those in the ascendant, especially if made by planets in their proper faces,[201] make men liberal, frank, self-confident, brave, ingenious, unreserved, yet acute. Oriental stations, and positions on the mid-heaven, or culminations, make men reflective, constant, of good memory, firm, prudent, magnanimous, successful in pursuing their desires, inflexible, powerful in intellect, strict, not easily imposed upon, judicious, active, hostile to crime, and skilful in science.

Precedent and occidental positions make men unsteady, irreverent, imbecile, impatient of labour, easily impressed, humble, doubting, wavering, boastful, and cowardly, slothful, lazy, and hard to rouse. Occidental stations, and positions on the lower heaven (as well as Mercury and Venus, when making vespertine descension by day, and rising in the night), will render the mind ingenious and sagacious, but not

capable of great recollection, nor very industrious; yet inquisitive in occult matters, such as magic and sacred mysteries; also studious of mechanics, and mechanical instruments: addicted to the observation of meteors, to philosophy, to augury by means of birds, and to the judgment of dreams.

Further, should the planets having dominion be in places of their own, and in conditions suitable to their own qualities, the mental properties will be rendered exquisite, unimpeded, and successful: and especially if these planets rule at the same time over both places; that is to say, be by some mode configurated with Mercury, and holds [Pg 109]separation from, or application to the Moon. Should the said planets, however, not be thus constituted, but be posited in places not particularly appropriate to themselves, they will yet, even then, infuse into the composition of the mental energy the properties of their own nature; but obscurely and imperfectly, and not with such force and strong evidence as in the other case.

The peculiar qualities of planets in dominion, or in elevation, are powerfully impressed upon the mental energy: for instance, persons, who, in consequence of the familiarity of the malefics, become wicked and dishonest, have their impulse to commit evil, free and unrestrained, when the said familiarity is not governed by any contrary influence. But, should a contrary condition impede and govern that familiarity, the impulse will be frustrated, and the culprits will be easily overtaken, and undergo punishment. In like manner, persons endowed with goodness and virtue, by the familiarity between the benefics and the before-mentioned places,[202] and when no contrary influence in elevation may interpose, will exert themselves with cheerfulness and alacrity in performing good actions, will be subject to no injustice, but enjoy the advantages of their honesty and virtue. If, however, this familiarity should be superseded by some contrary condition, the very mildness and humanity of these persons will operate to their disadvantage, exposing them to contempt and accusation, and rendering them liable to be wronged by the multitude.

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The foregoing observations, relative to the moral habit, apply generally; and the particular properties, created in the mental energies by the actual nature of the planets, according to the respective dominion of each, remain to be treated of.

The planet Saturn, therefore, when alone possessing dominion of the mind, and governing Mercury and the Moon, and if posited in glory, both cosmically and with respect to the angles,[203] will make men careful of their bodies,[204] strong and profound in opinion, austere, singular in their modes of thinking, laborious, imperious, hostile to crime, avaricious, parsimonious, accumulators of wealth, violent, and envious: but, if he be not in glory, cosmically, and as regards the angles, he will debase the mind, making it penurious, pusillanimous, ill-disposed, indiscriminating, malignant, timorous, slanderous, fond of solitude, repining, incapable of shame, bigoted, fond of labour, void of natural affection, treacherous in friendship and in family connections, incapable of enjoyment, and regardless of the body.[205] Connected with Jupiter in the mode before-mentioned, being also situated [Pg 110]in glory, Saturn will render the mind virtuous, respectful, well-intentioned, ready to assist, judicious, frugal, magnanimous, obliging, solicitous of good, affectionate in all domestic ties, mild, prudent, patient, and philosophical: but, if thus connected and posited ingloriously, he makes men outrageous, incapable of learning, timorous, highly superstitious, yet regardless of religion, suspicious, averse to children, incapable of friendship, cunning, misjudging, faithless, foolishly wicked, irascible, hypocritical, idle and useless, without ambition, yet regretful, morose, highly reserved, over-cautious, and dull. Conciliated with Mars, and posited in glory, Saturn renders men reckless, over-diligent, free in speech, turbulent, boastful, austere in their dealings, pitiless, contemptuous, fierce, warlike, bold, fond of tumults, insidious, deceitful, and implacable; promoters of faction, tyrannical, rapacious, hostile to the commonwealth, delighting in strife, vindictive, profound in guilt, strenuous, impatient, insolent, mischievous, overbearing, evil, unjust, obstinate, inhuman, inflexible, immutable in opinion, busy, able in office,

active, submitting to no opposition, and on the whole successful in their undertakings; but, if thus connected, and not placed in glory, he will make men plunderers, robbers, adulterers, submissive to evil, seeking gain by their turpitude, infidels in religion, void of the common affections, mischievous, treacherous, thievish, perjurers, and sanguinary; eaters of unlawful food, familiar with guilt, assassins, sorcerers, sacrilegious, impious, violators of the tomb, and, in short, thoroughly depraved. Conciliated with Venus, and being again in glory, Saturn makes men averse to women, and renders them fond of governing, prone to solitude, highly reserved, regardless of rank, indifferent to beauty, envious, austere, unsociable, singular in opinion, addicted to divination and to religious services and mysteries; solicitous of the priesthood, fanatical, and subservient to religion; solemn, reverential, sedate, studious of wisdom, faithful in friendship, continent, reflective, circumspect, and scrupulous in regard to female virtue: but, if he be thus conciliated, and not posited in glory, he makes men licentious and libidinous, practisers of lewdness, careless, and impure in sexual intercourse; obscene, treacherous to women, especially to those of their own families; wanton, quarrelsome, sordid, hating elegance; slanderous, drunken, superstitious, adulterous, and impious; blasphemers of the gods, and scoffers at holy rites; calumniators, sorcerers, hesitating at nothing. If conciliated with Mercury, and if in a glorious position, Saturn makes men inquisitive, loquacious, studious of law and of medicine, mystical, confederate in secrecy, fabricators of miracles, impostors, improvident, cunning, familiar with business, quick in perception, petulant, accurate, vigilant, meditative, fond of employment, and tractable: but, if connected with Mercury, and not posited gloriously, he causes men to be frivolous, vindictive, laborious, alienated from their families, fond of tormenting, and void of enjoyment; night-wanderers, insidious, [Pg 111]treacherous, pitiless, and thievish; magicians, sorcerers, forgers of writings, cheats, unsuccessful in their undertakings, and quickly reduced to adversity. Such are the effects of Saturn.

When Jupiter alone has dominion of the mind, and is gloriously situated, he renders it generous, gracious, pious, reverent, joyous, courteous, lofty, liberal, just, magnanimous, noble, self-acting, compassionate, fond of learning, beneficent, benevolent, and calculated for government: and, if posited ingloriously, he will endow the mind with qualities apparently similar to these, but not of such virtue and lustre: as, instead, of generosity, he will then cause profusion; instead of piety, bigotry; for modesty, timidity; for nobleness, arrogance; for courteousness, folly; for elegance, voluptuousness; for magnanimity, carelessness; and for liberality, indifference. Conciliated with Mars, and being in glory, Jupiter will make men rough, warlike, skilful in military affairs, dictatorial, refractory, impetuous, daring, free in speech, able in action, fond of disputation, contentious, imperious, generous, ambitious, irascible, judicious, and fortunate: but, if thus connected, and not placed in glory, he makes men mischievous, reckless, cruel, pitiless, seditious, quarrelsome, perverse, calumnious, arrogant, avaricious, rapacious, inconstant, vain and empty, unsteady, precipitate, faithless, injudicious, inconsiderate, senseless, and officious; inculpators, prodigals, triflers, altogether without conduct, and giving way to every impulse. When conciliated with Venus, and in a glorious position, Jupiter will render the mind pure, joyous, delighting in elegance, in the arts and sciences, and in poetry and music; valuable in friendship, sincere, beneficent, compassionate, inoffensive, religious, fond of sports and exercises, prudent, amiable, and affectionate, gracious, noble, brilliant, candid, liberal, discreet, temperate, modest, pious, just, fond of glory, and in all respects honourable and worthy; but, if posited ingloriously, when so connected, he makes men luxurious, soft, effeminate, fond of dancing, indulgent in expenses, incapable of managing women, yet amorous and lascivious; mean, slanderous, adulterous, fond of dress, dissolute, dull, wasteful, without energy, enervated, fond of personal adornment, womanish in mind, yet observant of holy rites and ceremonies, faithful, harmless, pleasant, affable, cheerful, and liberal to misfortune. If connected with Mercury, and posited in glory, Jupiter will render men fit for much business, fond of learning, and of geometry and the

mathematics; poetical, public orators, acute, temperate, well-disposed, skilful in counsel, politic, beneficent, able in government, pious, religious, valuable in all useful professions, benevolent, affectionate in their families, ready in acquiring knowledge, philosophical, and dignified: but when so connected, and placed ingloriously, he will produce contrary effects, rendering men frivolous, empty, contemptible, credulous of falsehood, senseless, fanatical, trifling, petulant, affectors of wisdom, stupid, arrogant, pretenders in art, magicians, and vacillating: Yet he will [Pg 112]also produce men skilled in various learning, and of strong memory, capable of imparting instruction, and pure in their enjoyments.

Mars alone having dominion of the mind, and placed with glory, makes men noble, imperious, irascible, warlike, versatile, powerful in intellect, daring, bold, refractory, careless, obstinate, acute, self-confident, contemptuous, tyrannical, strenuous, stern and able in government: but, posited ingloriously, he makes men cruel, mischievous, sanguinary, tumultuous, extravagant in expense, boisterous, ruffian-like, precipitate, drunken, rapacious, pitiless, familiar with crime, restless, outrageous, hostile to their families, and infidels in religion. Should he be conciliated with Venus, and posited in glory, he renders the mind cheerful, docile, friendly, complacent, joyous, playful, frank, delighting in songs and dancing, amorous, fond of the arts, and of dramatic personation, voluptuous, brave, libidinous in desire, sensible, cautious, and discreet; disposed to free sexual intercourse,[206] quick in anger, extravagant in expense, and jealous: but, if he have an inglorious position when thus conciliated, he makes men overbearing, lascivious, sordid, opprobrious, adulterous, mischievous, liars, fabricators of deceit, cheats of their own families as well as others, eager in desire, and at the same time soon satiated, debauchers of wives and virgins, daring, impetuous, ungovernable, treacherous, faithless, dangerous, fickle and weak in mind; and occasionally also wasteful, fond of dress, audacious, and shameless. Connected with Mercury, and placed in glory, Mars renders men skilful in command, cautious, strenuous, active, obstinate,

yet versatile, inventive, sophistical, laborious, busy in all things, eloquent, imposing, deceitful, inconstant, overknowing, maliciously artful, quick witted, seductive, hypocritical, treacherous, habituated to evil, inquisitive, fond of strife, and successful; fair dealers with persons of habits similar to their own, and, in short, altogether mischievous to their enemies, though beneficial to their friends: but, if Mars be posited ingloriously, and thus connected, he makes men prodigal, yet avaricious, cruel, daring, bold, regretful and vacillating; liars, thieves, infidels in religion, perjurers, and impostors; seditious, incendiaries, frequenters of theatres, covered with infamy, robbers, housebreakers, sanguinary, forgers of writings, familiar with crime, jugglers, magicians, sorcerers, and assassins.

When Venus rules alone in a position of glory, she renders the mind benignant, good, voluptuous, copious in wit, pure, gay, fond of dancing, jealous, abhorring wickedness, delighting in the arts, pious, modest, well-disposed, happy in dreams, affectionate, beneficent, compassionate, refined in taste, easily reconciled, tractable, and entirely amiable: but, if contrarily posited, she renders the mind dull, amorous, effeminate, timorous, indiscriminating, sordid, faulty, obscure, and ignominious. Conciliated with Mercury, and posited with [Pg 113]glory, Venus makes men lovers of the arts, philosophical, of scientific mind and good genius, poetical, delighting in learning and elegance, polite, voluptuous, luxurious in their habits of life, joyous, friendly, pious, prudent, fitted for various arts, intelligent, not misled by error, quick in learning, self-teaching, emulous of worth, followers of virtue, copious and agreeable in speech, serene and sincere in manner, delighting in exercise, honest, judicious, high-minded, and continent in desire as regards women[207]; but, when so conciliated and posited adversely, she will make men oppressive, fit for various arts, evil-tongued, unsteady, malevolent, fraudulent, turbulent, liars, calumniators, faithless, crafty, insidious, practised in evil, uncourteous, debauchers of women, corrupters of youth,[208] fond of personal

adornment, dissolute, infamous, notoriously offensive and publicly complained of, yet striving after all things.

Mercury, alone, having dominion of the mind, and being in a glorious position, renders it prudent, clever, sensible, capable of great learning, inventive, expert, logical, studious of nature, speculative, of good genius, emulous, benevolent, skilful in argument, accurate in conjecture, adapted to sciences and mysteries, and tractable: but, when placed contrarily, he makes men busy in all things, precipitate, forgetful, impetuous, frivolous, variable, regretful, foolish, inconsiderate, void of truth, careless, inconstant, insatiable, avaricious, unjust; and altogether of slippery intellect, and predisposed to error.

To these influences and their effects, as above detailed, the Moon also contributes: for, should she be in the bends of her southern or northern boundary,[209] she will render the properties of the mind more various, more versatile in art, and more susceptible of change: if she be in her nodes, she will make them more acute, more practical, and more active. Also, when in the ascendant, and during the increase of her illumination, she augments their ingenuity, perspicuity, firmness and expansion; but, when found in her decrease, or in occultation, she renders them more heavy, more obtuse, more variable of purpose, more timid, and more obscure.

The Sun likewise co-operates, when conciliated with the lord of the mental temperament; contributing, if he be in a glorious position, to increase probity, industry, honour, and all laudable qualities; but, if adversely situated, he increases debasement, depravity, obscurity, cruelty, obstinacy, moroseness, and all other evil qualities.

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CHAPTER XIX

THE DISEASES OF THE MIND

In connection with the foregoing discussion on the properties of the mind, the circumstances relating to eminent mental disorders, such as madness, epilepsy,[210] and others of the like formidable nature, duly claim attention.

Now, with reference to these, it is always essential to consider the planet Mercury and the Moon, and to observe in what mode they may be disposed towards each other, and towards the angles, and also towards the malefics: for, if the Moon and Mercury be unconnected with each other, or with the oriental horizon, and provided such planets as may be adversely and noxiously configurated should be in elevation above them, or overrule them, or be in opposition to them, the mental properties will then consequently become impregnated with various disorders: the characters of which may be clearly known by the qualities of the stars thus controlling the places.[211]

It is true that there are many disorders of a moderate nature, capable of being distinguished by what has been already stated, in the preceding chapter, regarding the mental qualities: for it is by the increase and growth of certain of those qualities, that an injurious excess is produced; and every irregularity of the moral habit, whether by deficiency or superabundance, may be fitly termed a moral disorder, But, at the same time, there are other disorders of so vast and manifold a disproportion, that they quite, as it were, overpower the natural course of the intellect and passions of the mind. And of these greater disorders it is now proposed to treat.

For example, epilepsy generally attaches to all persons born when Mercury and the Moon may be unconnected either with each other, or with the oriental horizon, while Saturn and Mars may be in angles and superintend the scheme; that is to say, provided Saturn be so posited by day, and Mars by night: otherwise, when the converse may happen in these schemes, viz. when Saturn may have dominion by night, but Mars by

day (especially if in Cancer, Virgo or Pisces), the persons born will become insane. And they will become demoniac, and afflicted with moisture of the brain, if the Moon, being in face to the Sun, should be governed by Saturn when operating her conjunction, but by Mars when effecting her opposition; and particularly when it may happen in Sagittarius and in Pisces.[Pg 115]

If the malefics, only, should have ruled the scheme, in the manner described, the said disorders of the mind will become irremediable, although at the same time not eminent, but doubtful, and not openly displayed; but, should the benefics, Jupiter and Venus, be conciliated, and be posited in eastern parts and in angles, while the malefics may be in western parts, the disorders, although highly conspicuous, will then be susceptible to cure. For instance, under Jupiter's influence, they will be healed by means of medical or surgical aid, and by diet and medicine; under Venus, by the guidance of oracles and by divine interposition.

Should the benefics, however, be occidental, and the malefics be found in eastern parts and in angles, the disorders will then become not only incurable, but most conspicuous: the epileptic persons will then be subjected to constant fits, and to danger of death; the insane will become outrageous and unmanageable, breaking away from their families, raving and wandering in nakedness: the demoniacs and those afflicted with moisture of the brain will become furious, uttering mysterious sayings, and wounding themselves.

The several places of position in the scheme also afford co-operation: for instance, those of the Sun and Mars contribute to insanity; those of Jupiter and Mercury, to epilepsy; those of Venus, to the fury of enthusiasm; and those of Saturn and the Moon, to demoniac affections and moisture of the brain.

It is by such configurations, as those just described, that any morbid deviation, occurring in the active or reasoning faculties of the mind, is produced; but a deviation of the passive, or merely sensitive faculties, is discernible chiefly in the excess and

deficiency (as the case may be) of the masculine and feminine genders; that is to say, in the superabundance, or deficiency, of the power of either gender, to produce a conformation agreeable to its own proper nature: and a knowledge of this latter deviation is to be acquired by means of the following rules.

When the Sun, instead of Mercury, may be with the Moon, and if Mars, together with Venus, be then in familiarity with them, in that case, provided the luminaries only be found in masculine signs, men will excel in their nature, or, in other words, will possess in full plenitude the properties becoming their sex; while the properties of women, who are thus constituted more masculinely and more actively, will deviate from the usual limits of nature. But, if both Mars and Venus, or if only one of them, be likewise masculinely situated, men will be freely and promptly inclined to natural intercourse and connexion; and women will be, in like manner, licentious and intemperate in intercourse beyond nature. Their desires will be practised in privacy, and not openly, should only Venus be situated masculinely; but shamelessly and publicly, if Mars also masculinely placed, together with Venus.

But, if the luminaries only be in feminine signs, women will then [Pg 116]possess their natural functions in greater plenitude, and men will deviate from the limits of nature towards effeminacy and wantonness. And, if Venus be femininely posited, women will be lustful and licentious, and men wanton and soft; seeking connexion contrary to nature; yet in privacy and not openly: but, if Mars be posited femininely, they will then put their desires in practice shamelessly and publicly.

The oriental and diurnal positions of Mars and Venus also contribute to more masculine and more reputable qualities; and their occidental and vespertine[212] positions to qualities more feminine, and more sordid.

Lastly, if Saturn be in familiarity with them, he will likewise co-operate, by tending to produce greater impurity and obscenity, and greater evil altogether; but Jupiter, if in

familiarity, tends to greater decency and modesty, and altogether to better conduct; and Mercury to greater mobility, diversity, activity, and notoriety of the passions.

END OF THE THIRD BOOK

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BOOK THE FOURTH

CHAPTER I

PROEM

All those circumstances have now been set forth, which occur previously to the birth, as well as at the actual birth, and after it, and which it seemed necessary to mention, as conducing to a knowledge of the general quality of the contemperament produced. And of the other points, now remaining, by which extrinsic events[213] are contemplated, those regarding the several fortunes of wealth and of rank claim to be taken first into consideration. Each of these fortunes has a distinct relationship; for instance, that of wealth relates to the body, and that of rank to the mind.

CHAPTER II

THE FORTUNE OF WEALTH

The circumstances regulating the fortune of wealth are to be judged of from that part alone, which is expressly denominated the Part of Fortune; the position of which is, in all cases, whether arising in the day or in the night, always as far removed from the ascendant as the Sun is distant from the Moon.[214]

When the Part of Fortune has been determined, it must be ascertained to what planets the dominion of it belongs; and their power and connexion, as also the power and connexion of others configurated with them, or in elevation above them, whether of the same or of an adverse condition, are then to be observed: for, if the planets which assume dominion of the Part of Fortune be in full force, they will create much wealth, and especially should the luminaries also give them suitable testimony in addition.

In this manner, Saturn will effect the acquirement of wealth by means of buildings, agriculture, or navigation; Jupiter, by holding some government, or office of trust, or by the priesthood; Mars, by the army [Pg 118]and military command; Venus by means of friends, by the dowry of wives, or by other gifts proceeding from women[215]; and Mercury by the sciences and by trade.

Should Saturn, however, when thus in influence over the fortune of wealth, be also configurated with Jupiter, he particularly provides wealth through inheritance; especially, if the configuration should exist in the superior angles, Jupiter being also in a bicorporeal sign and receiving the application of the Moon; for, in such a case, the native will also be adopted by persons unallied to him, and will become heir to their property.

And, further, if other stars, of the same condition as those which rule the Part of Fortune, should likewise exhibit testimonies of dominion, the wealth will be permanent: but, on the other hand, if stars of an adverse condition should either be in elevation above the ruling places, or ascend in succession to them, the wealth will not continue. The general period of its duration is, however, to be calculated by means of the

declination of the stars, which operate the loss, in respect of the angles and succedent houses.[216]

CHAPTER III

THE FORTUNE OF RANK

The disposition of the luminaries and the respective familiarities, exercised by the stars attending them, are to be considered as indicative of the degree of rank or dignity.[217]

For example, should the two luminaries be found in masculine signs and in angles, or even if only one of them be in an angle,[218] they being at the same time specially attended by a doryphory[219] composed of all the five planets; the Sun by such as are oriental, but the Moon by occidental, the persons then about to be born will [Pg 119]consequently become kings or princes. And, if the attendant stars themselves should also be in angles, or configurated with the angle above the earth,[220] the said persons will become great, powerful, and mighty in the world: and even yet more abundantly so, provided the configurations, made by the attendant stars with the angles above the earth, be dexter. But, when both luminaries may not be found in masculine signs as aforesaid, but the Sun only in a masculine and the Moon in a feminine sign, and only one of them posited in an angle, the other concomitant circumstances still existing in the mode above described, the persons about to be born will then become merely chieftains, invested with the sovereignty of life and death.

And if the attendant stars, while the luminaries may be situated in the manner last-mentioned, should be neither actually in angles, nor bear any testimony to the angles, the persons then born, although they will still enjoy eminence, will attain only some

limited dignity or distinction; such as that of a delegated governor, or commander of an army, or dignitary of the priesthood; and they will not be invested with sovereignty.

If, however, neither of the luminaries be in an angle, and it happen that most of the attendant stars be either themselves in angles, or configurated with the angles, the persons then born will not attain to any very eminent rank; yet they will take a leading part in ordinary civil and municipal affairs: but, should the attendant stars have no configuration with the angles, they will then remain altogether undistinguished and without advancement; and provided, further, that neither of the luminaries be found situated in a masculine sign, nor in an angle, nor be attended by any benefics, they will be born to complete obscurity and adversity.

The general appearance of exaltation or debasement of rank is to be contemplated as before stated, but there are many gradations intermediate to those already specified, and requiring observation of the particular interchanges and variations, incidental to the luminaries themselves and their doryphory, and also to the dominion of [Pg 120]the planets which compose their doryphory. For instance, should the benefics, or stars of the same condition, exercise the chief dominion, the dignities to be acquired will be not only important, but also more securely established; and, on the other hand, if the chief dominion be claimed by the malefics, or by stars of an adverse condition, the dignities will be more subordinate, and more dangerous and evanescent.

The species of dignity may be inferred by observing the peculiar qualities of the attendant stars. And, if Saturn have chief dominion of the doryphory, the power and authority derived therefrom will lead to wealth and profit: authority proceeding from Jupiter and Venus will be pleasurable, and attended by presents and honours: that proceeding from Mars will consist in commanding armies, in obtaining victories, and in overawing the vanquished: and that proceeding from Mercury will be intellectual, superintending education and study, and directing the management of business.

CHAPTER IV

THE QUALITY OF EMPLOYMENT

The dominion of the employment, or profession, is claimed in two quarters; viz. by the Sun, and by the sign on the mid-heaven.

It is, therefore, necessary to observe whether any planet may be making its oriental appearance nearest to the Sun,[221] and whether any be posited in the mid-heaven; especially, when also receiving the application of the Moon. And if one and the same planet possess both these qualifications, that is to say, make its nearest appearance to the Sun, and be also in the mid-heaven, that one alone must be elected to determine the present inquiry: and, likewise, though the planet should not be thus doubly qualified, but only singly, in whichever respect, even then that planet alone must still be elected provided itself alone should possess such single qualification. If, however, there should be one planet presenting its nearest appearance, and another in the mid-heaven conciliating the Moon, both must then be noticed; and whichever of two may have greater sway, and possess greater rights of dominion, that one must be preferred. But where not any planet may be found so situated, neither making its appearance as above described, nor being in the mid-heaven, then that one, possessing the dominion of the mid-heaven,[222] is to be considered as lord of the[Pg 121] employment: it is, however, only some occasional occupation which can be thus denoted; because persons, born under such a configuration, most commonly remain at leisure and unemployed.

What has now been said, relates to the election of the lord of the employment or profession; but the species of the employment will be distinguished by means of the respective properties of the three planets, Mars, Venus, and Mercury, and of the signs in which they may be posited.

Mercury, for instance, produces writers, superintendents of business, accountants, teachers in the sciences, merchants and bankers: also, soothsayers, astrologers, and attendants on sacrifices, and, in short, all who live by the exercise of literature, and by furnishing explanation or interpretation; as well as by stipend and salary, or allowance. If Saturn bear testimony jointly with Mercury, persons then born will become managers of the affairs of others, or interpreters of dreams, or will be engaged in temples for the purpose of divination, and for the sake of their fanaticism. But, if Jupiter join testimony, they will be painters, orators, or pleaders in argument, and occupied with eminent personages.

Should Venus have dominion of the employment, she will cause persons to be engaged in the various perfumes of flowers, in unguents and wines, and also in colours, dyes, and in spices: thus she will produce vendors of unguents, garland-makers,[223] wine-merchants, dealers in medical drugs, weavers, dealers in spices, painters, dyers, and vendors of apparel. If Saturn add his testimony to hers, he will cause persons to be employed in matters belonging to amusement and decoration; and will also produce jugglers, sorcerers and charlatans, and all such as practise similarly. But, if Jupiter join testimony with Venus, persons will become prize-wrestlers, and garland-wearers,[224] and will be advanced in honour through female interest.

Mars, ruling the employment, and being configurated with the Sun, will produce persons who operate by means of fire; for instance, cooks, as [Pg 122]well as those who work in copper, brass, and other metals, by melting, burning, and casting: if Mars be separated from the Sun, he will make shipwrights, smiths, agriculturists, stonemasons, carpenters, and subordinate labourers. If Saturn bear testimony, in addition to Mars, persons will become mariners, workers in wells, vaults or mines, painters, keepers of beasts or cattle, cooks or butchers, and attendants on baths or on exhibitions. And, if Jupiter join testimony, they will be soldiers, or mechanics, collectors of revenue, inn-keepers, toll-gatherers, or attendants on sacrifices.

Further, should it happen that two arbiters of employment may be found together, and provided they should be Mercury and Venus, they will then produce musicians, melodists, and persons engaged in music, poetry, and songs: they will also produce (especially if changed in their places)[225], mimics, actors, dealers in slaves, makers of musical instruments, choristers and musical performers, dancers, weavers, modellers in wax, and painters. And if Saturn join testimony with Mercury and Venus, the preparation and sale of female ornaments will be added to the aforesaid occupations. But, if Jupiter give testimony, the persons will become administrators of justice, guardians of public affairs, instructors of youth, and magistrates of the people.

Should Mercury and Mars together be lords of the employment, persons will become statuaries, armour-makers, sculptors,[226] modellers of animals, wrestlers, surgeons, spies or informers, adulterers, busy in crime, and forgers. And, if Saturn also bear testimony in addition to Mercury and Mars, he will produce assassins, highwaymen, thieves, robbers lurking in ambush, marauders on cattle, and swindlers. But, if Jupiter afford testimony, he will engage persons in honourable warfare, and in industry; making them cautious and diligent in business, curious in foreign matters, and deriving profit from their pursuits.

When Venus and Mars exercise the dominion together, persons will become dyers, dealers in unguents and perfumes, workers in tin, lead, gold, and silver, mock combatants or dancers in armour, dealers in medical drugs, agriculturists, and physicians, healing by means of medicine. And if Saturn add testimony to Venus and Mars, he will produce persons attendant on animals consecrated to religion; also grave-diggers and undertakers, mourners and musicians at funerals, and fanatics occupied in religious ceremonies, lamentations, and blood. But, if Jupiter add testimony, the persons will become regulators of sacrifices, augurs, holders of sacred offices, governors placed over women, and interpreters; and they will derive support from such occupations.

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The properties of the signs, in which the lords of the employment may be posited, are also influential in varying the employment. For example, [Pg 123]the signs of human shape promote all scientific pursuits, and such as are of utility to mankind; the quadrupedal signs contribute to produce employment among metals, in business and trade, in house-building, and in the work of smiths and mechanics: the tropical and equinoctial signs tend to give employment in translation or interpretation, in matters of exchange, in mensuration and agriculture, and in religious duties: the terrestrial and watery signs tend to employment in water, and in connection with water, as well in regard to the nurture of plants, as to ship-building; they likewise contribute to employment in funerals, in embalming and preserving, and also in salt.

Moreover, should the Moon herself actually occupy the place regulating the employment,[227] and, after her conjunction, continue in course with Mercury, being at the same time in Taurus, Capricorn, or Cancer, she will then produce soothsayers, attendants on sacrifices, and diviners by the basin.[228] If she be in Sagittarius or Pisces, she will make necromancers, and evokers of dæmons: if in Virgo or Scorpio, magicians, astrologers, and oracular persons, possessing prescience: and, if in Libra, Aries, or Leo, she will produce fanatics, interpreters of dreams, and makers of false vows and adjurations.

From the foregoing rules, the various forms of employment are to be inferred; and its magnitude or importance will be manifested by the existing power of the ruling planets. For instance, if the said planets be oriental, or in angles, they will give the person eminence and authority in his employment; but, if occidental or cadent, they will render him subordinate. And should the benefics be in elevation, the employment will be important, lucrative, secure, honourable, and agreeable; but, on the other hand, if the malefics be in elevation above the lords of the employment, it will then be mean, disreputable, unprofitable, and insecure: thus, Saturn brings an adverse influence in coldness or tardiness, and in the composition or mixture of colours[229]; and Mars

produces opposition by audacity and publicity in enterprise: [Pg 124]and both planets are alike hostile to proficiency and prosperity.

The general period, at which any increase or diminution of the employment may take place, must, again in this case also, be determined by the disposition of the stars, which operate the effect towards the oriental and occidental angles.

CHAPTER V

MARRIAGE

The consideration of circumstances relating to marriage, or the cohabitation of husband and wife, as sanctioned by law, succeeds to the foregoing details, and must be pursued in the following method.

With regard to men, it is to be observed in what manner the Moon may be disposed; for, in the first place, if she be found in the oriental quadrants, she will cause men either to marry early in life, or, after having over-passed their prime, to marry young women; "but, should she be situated in either of the occidental quadrants, men will then marry either late in life, or to women advanced in age[230]": and if she be found under the Sun's beams, and configurated with Saturn, she then entirely denies marriage. Secondly, should she be in a sign of single form, and in application to only one of the planets, she will cause men to marry only once; but, if she be in a bicorporeal or multiform sign, or in application to several planets, she will cause them to be married several times; and, provided also that the planets, which thus, either by adjacency or by testimony,[231] receive her application, be benefic, men will then obtain good wives; but if, on the contrary, the said planets be malefic, bad. For example, if Saturn receive the Moon's application, the wives whom he will provide will be troublesome and morose; but, if Jupiter receive it, they will be decorous and economical; if Mars, bold and

refractory; if Venus, cheerful, handsome, and agreeable; and, if Mercury, sensible, prudent, and clever. Moreover, should Venus be found connected with Jupiter, Saturn,[232] or Mercury, she will render wives provident, and attached to their husbands and children; but, if she be found connected with Mars, they will be irascible, unsteady, and indiscreet. Thus far in reference to the marriage of men.

But, in the case of women, the Sun must be observed, instead of the Moon: and, should he be posited in the oriental quadrants, women will [Pg 125]be married either in their own youth, or to men younger than themselves; but, if he be in the occidental quadrants, they will either be married late in life, or to men who have passed their prime, and are advanced in years. And should the Sun be in a sign of single form, or configurated with only one oriental planet, he will cause them to enter into matrimony only once; but, if in a bicorporeal or multiform sign, or configurated with several oriental planets, he will then cause them to be often married. And Saturn, being configurated with the Sun, will provide husbands steadfast, advantageous, and industrious; Jupiter, such as are honourable and noble-minded; Mars, severe husbands void of affection and intractable; Venus, amiable and handsome husbands; and Mercury, such as are provident and expert in business. But, if Venus be found connected with Saturn, she will indicate dull and timid husbands; "if with Jupiter, the husbands will be good, just, and modest[233];" if with Mars, hasty, lustful, and adulterous; and if with Mercury, they will be extravagantly desirous of young persons.[234]

In regard to the Sun, those quadrants which precede the ascending and descending points of the zodiac, and, in respect of the Moon, those which are measured from her conjunction and opposition[235] to her intermediate quarters, are called oriental quadrants: the occidental quadrants are, of course, those lying opposite to the oriental.

Whenever both nativities, viz. that of the husband and that of the wife, may exhibit the luminaries configurated together in concord, that is to say, either in trine or in sextile to each other, the cohabitation will most usually be lasting; especially if the said concord

exist by means of interchange[236]; but its duration will be also much more securely established, provided the Moon in the husband's nativity should correspond or agree with the Sun in the wife's nativity.[237] If, however, the relative positions of the luminaries be in signs inconjunct, or in opposition, or in quartile, the cohabitation will be speedily dissolved upon slight causes, and the total separation of the parties will ensue.

And should the configuration of the luminaries, when made in concord, be aspected by the benefics, the cohabitation will continue in respectability, comfort, and advantage; but, on the other hand, it will abound in strife, contention, and misfortune, if the malefics be in aspect to the said configuration.

In like manner, even though the luminaries may not be favourably [Pg 126]configurated in concord, should the benefics still offer testimony to them, the cohabitation will then not be entirely broken off, nor totally destroyed for ever, but will be again renewed, and re-established as before. But if, on the contrary, the malefics bear testimony to such discordant disposition of the luminaries, a dissolution of the cohabitation will take place, accompanied by scorn and injury. Should Mercury alone be conjoined with the malefics, it will be effected by means of some public inculpation; and if Venus also be found with them, it will be on the ground of adultery, or sorcery, or some similar offence.

There are, however, other varieties in the married state, which are to be contemplated by means of Venus, Mars, and Saturn. And should these planets act in familiarity with the luminaries, the cohabitation will be appropriate and domestic, and authorised by law; because Venus holds a certain affinity both to Mars and Saturn: her affinity to Mars, for instance, consists in each having exaltation in a sign belonging to the other's triplicity,[238] and it operates in the cases of youthful and vigorous persons: while her affinity to Saturn arises from their respective houses being in the signs, again

also, belonging to each other's triplicity,[239] and relates to persons of more advanced age.

Hence, if Venus be in concurrence with Mars, she will produce entire love and affection in the cohabiting parties; and if Mercury also coincide with the said planets, such affection will become publicly notorious. Should Venus be found in a sign mutually common and familiar, such as Capricorn, or Pisces,[240] she will effect marriages between brothers and sisters and kindred by blood: and, provided she be also in the presence of the Moon, when the native may be male, she will cause him to connect himself with two sisters, or other near relatives; but, if the native be a female, a similar contract on her part, with two brothers or near relatives, will be indicated, when Venus may be also with Jupiter.[241]

Again, if Venus be with Saturn, the cohabitation will be established entirely in happiness and constancy; and if Mercury be present with them, it will be profitable; but, should Mars be present, it will be unsettled, calamitous, and afflicted by jealousy. And if Mars be configurated on equal terms with Venus, Saturn, and Mercury, he will effect marriage between persons of equal age; but, on the other hand, should he be more oriental, marriage will take place with a younger man or woman; and, if more occidental, with an older person. Should Venus [Pg 127]and Saturn be found in signs common to each other, that is to say, in Capricorn and Libra,[242] marriage will be contracted between persons kindred by blood: and, when the said position may happen in the ascendant, or in the mid-heaven, provided the Moon also should present herself there, men will become connected with their mothers, or maternal aunts, or with their mothers-in-law; and women with their own sons, or the sons of their brothers, or with their daughters' husbands. But if, instead of the Moon, the Sun should be in concurrence with the said position, and especially should it happen that the planets in question may be occidental, men will then connect themselves with their daughters, or the wives of

their sons; and women with their fathers, or paternal uncles, or the husbands of their daughters.

When the aforesaid configurations,[243] although not existing in signs of affinity to each other,[244] should be found in feminine places, they will render the parties obscene, lustful and shameless; for instance, when found in the anterior and hinder parts of Aries, and near the Hyades of Taurus, about the urn of Aquarius, in the hinder parts of Leo, and in the face of Capricorn. And should the last-named planets, Venus and Saturn, be posited in angles, they will then, if posited in the first two angles, the eastern and southern, produce a total exposure of the passions, and cause them to be publicly canvassed; but, if in the last two angles, the western and northern, they will produce eunuchs, or persons unprolific, and not possessing the proper channels of nature.

The passions, liable to operate in males, are to be considered by observation of Mars: for should he be separated from Venus and Saturn, but yet, at the same time, be supported by the testimony of Jupiter, he will make men pure and decorous in sexual intercourse, and incline them to natural usages only: and, if he attach himself to Saturn only, he will render them cold in blood and dull in appetite; if, however, when Saturn and Mars may be thus connected together, Venus and Jupiter should also be configurated with them, men will then become easily excited and eager in desire, although they will still be continent, and restrain themselves in order to avoid reproach. But should Saturn be absent, and Mars be with Venus alone, or even although Jupiter also be with her, men will become highly licentious, and attempt to gratify their desires in every mode.[245] And further, if Venus be found more occidental, men will connect [Pg 128]themselves with low women, female servants, and aliens or vagabonds; but, should Mars be found occidental, with women of rank, and gentlewomen; or with women living with their husbands, or under the protection of men. Thus far with regard to males.

In the case of females, Venus requires attention: for, if she be configurated with Jupiter, or with Mercury, she will cause women to be temperate and pure in sexual intercourse; still, however, when she may be thus connected with Mercury, if Saturn be not present also, she will cause them to be easily excited to desire; although they will control their desires, and avoid reproach. But, should Venus be conjoined or configurated with Mars alone, she will render women licentious and lustful; and if, to both these planets, when thus conjoined or configurated, Jupiter also present himself, Mars being at the same time under the rays of the Sun, women will then mingle in intercourse with servants, and persons meaner than themselves, or with aliens, or vagabonds: but, should it happen that Venus may be under the rays of the Sun, they will then connect themselves with their superiors or masters. And, further, should the planets be in feminine places, or configurated femininely, they will be content with their passive faculties only.[246]

Saturn, in being conciliated with such positions as those now described, tends to produce greater obscenity; Jupiter, greater decency; and Mercury, greater publicity, and greater fickleness, or instability.

CHAPTER VI

CHILDREN

The next point to be investigated is that concerning children: and, to accomplish this, observation must be made of the planets posited in, or configurated with the place on the zenith,[247] or its succedent house, which latter is called the place of the good dæmon. And should it happen that not any planets may be present in the said places, nor configurated with them, it will then be necessary to take into consideration such as may be in opposition thereto.

Now the Moon, Jupiter, and Venus are esteemed as givers of offspring; but the Sun, Mars, and Saturn are considered as denying children altogether, or as allowing but few:

while Mercury, being in quality common to both parties, lends co-operation to that with which he may be configurated, and gives offspring, when oriental, but withholds, when occidental.[Pg 129]

To speak briefly, if the planets, which grant progeny, be so posited as described,[248] and placed singly, the gift of progeny will be single only[249]; but should they be in bicorporeal or in feminine signs, they will grant double offsprings[250]: so likewise if they should be in prolific or seminal signs, such as Pisces, Cancer, and Scorpio, they will grant twins, or even more. And provided they should also be masculinely constituted, as well by configuration with the Sun, as by being in masculine signs, they will grant male children; but otherwise, if femininely constituted, female.

But, although the said planets, even if beneath the malefics in elevation, or, even if found in barren places, or in signs such as those of Leo and Virgo, will still grant children; yet such children, thus indicated, will neither be healthy, nor continue in life. Should it happen, however, that the Sun and the malefics may be in entire possession of the places above mentioned, viz. that on the zenith, or the succedent house allotted to the good dæmon; and provided they be, at the same time, in masculine or barren signs, and the benefics be not in elevation above them, a total privation of offspring is thereby indicated; but, should they be in feminine or prolific signs, or supported by the testimony of the benefics, children will then be granted; yet they will be liable to disease, and short-lived.

If, however, planets of each condition should be configurated with, and have prerogative in prolific signs, there will then ensue a loss of either all the children, or only few, or else the major part of them; in the same proportion as that in which the planets, bearing testimony to either condition, may preponderate on one side rather than the other; by excelling in number, or in influence, in consequence of being posited more orientally, more genuinely in angles, higher in elevation, or successively ascending.

When the lords of the aforesaid signs[251] may be such as are givers of offspring, and be either oriental, or in places proper to themselves, the children thus granted will become eminent and illustrious: but, if occidental, or in places not proper to themselves, the children will then become undistinguished and abject. Should the said lords also be in concord with the part of fortune, and with the ascendant, they will render the children amiable, and cause them to be beloved by their parents, and to inherit their parents' substance: but, if found inconjunct, and not in concord with the said parts, the children will then become odious and mischievous to their parents, and will forfeit the inheritance of their substance.[Pg 130]

Further, should the planets which grant progeny be appropriately configurated with each other, they will promote brotherly love, and mutual regard and affection among the children; but, if inconjunct, or in opposition, they will excite in them mutual hatred, deceit, and treachery.

The general investigation regarding children is to be conducted in the foregoing method: but, in order to enquire into particular circumstances consequent on the above, it will be necessary to assume, as an ascendant, the position of each planet which gives offspring, and to observe the separate schemes; drawing inferences therefrom as in the case of a nativity.

CHAPTER VII

FRIENDS AND ENEMIES

With respect to friendship and enmity, it may be observed that great and lasting familiarities, or disagreements, are respectively called sympathies and enmities; while the smaller, such as arise occasionally, and subsist for a short time only, are

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denominated casual intimacies and strifes: the whole are to be contemplated according to the following rules.

Indications of great and lasting friendships, or enmities, may be perceived by observation of the ruling places, exhibited in the respective nativities of both the persons, between whom the friendship or enmity may subsist. It is consequently essential to observe the places of the Sun, the Moon, the ascendant, and the part of fortune; for, should all these in both nativities be in the same signs, or should either all or most of them be counterchanged in position in each nativity, and especially should the two ascendants be within the distance of seventeen degrees from each other,[252] they will create fixed and indissoluble friendship. On the other hand, should they be in signs inconjunct, or in opposition, they will produce great and lasting enmity. If, however, they be not constituted in either of the modes above mentioned, but merely configurated in signs,[253] they will then produce minor friendship; provided such configuration exist by trine or sextile; but, if by quartile, they will excite minor enmity, so as to take effect at certain particular times, in which the friendship remains, as it were, inactive and subdued, while the malefics transit the configuration: and, in a similar manner, enmity also will be softened and abated, when the benefics may enter upon the configuration.[254]

[Pg 131]The friendship and enmity, which men bear towards each other, may be classed under three general heads. One kind is suggested by spontaneous wilfulness; another, by the idea of profit; and another, by pain and pleasure mutually excited.

And, therefore, should either all or most of the aforesaid places be in familiarity with each other, friendship of all the three kinds will be established: so, also, should the places be entirely without familiarity, similar enmity will be established. If, however, familiarity, or absence of familiarity (as the case may be), exist only as regards the places of the luminaries, friendship or enmity will then be established by spontaneous will; and friendship thus produced is the best and most secure; while, on the other hand, enmity so arising is, in like manner, the worst and most dangerous. The friendship, or

enmity, consequent on the familiarity or non-familiarity of the respective parts of Fortune, will be established on the idea of profit; and that, consequent on a similar disposition of the respective ascendants, will arise from pain or pleasure mutually excited between the parties.

It will, however, be necessary to pay still further attention to the places in question, in order to observe whether any and what planets may be in elevation above them, or in aspect to them; because, among all the said places, that particular one, to which any planet in elevation, or in succession, may be adjacent, whether in the same sign, or in the next, will possess the more powerful influence over friendship or enmity: and whichever place may have its aspecting planets more powerfully benefic, will operate in a greater degree[255] to advantage in friendship, and to the relaxation of enmity. The foregoing instructions are applicable to such friendships or enmities as are great and lasting.

But, in the case of others, which subsist only occasionally, and which have been defined as casual intimacies and strifes, it is essential to make observation of the motions of the planets, as exhibited by each nativity; that is to say, the times are to be calculated, on the completion of which the motions of the planets of one nativity will cause them to enter on certain places of the other nativity; for it is at such periods that certain particular friendships and enmities occur, continuing for a short time, until the said ingress of the planets shall have passed over.

For instance, Saturn and Jupiter, when making ingress upon each other's places, produce friendship by certain agreements, or engagements, relating either to agriculture or to inheritance: Saturn and Mars create contention and treachery spontaneously entertained: Saturn and Venus, friendship between kindred; liable, however, soon to grow cool: Saturn and Mercury, friendship on account of business, or profit, or some secret art or mystery.

Jupiter and Mars create friendship in the direction of affairs, and by means of dignities; Jupiter and Venus also create friendship by means of [Pg 132]female persons, or attendants on religion, or on oracles: Jupiter and Mercury, friendship by means of eloquence and science, and philosophical inclinations.

Mars and Venus cause friendship in the course of amours, adultery, and fornication: Mars and Mercury excite hatred and strife by offences committed in business and trade, or by sorcery.

And Venus and Mercury produce communion by means of the arts and sciences, by a mutual interest in literature, or by female persons.

It is in this manner that the planets operate in producing friendship or enmity. And their comparative intensity or relaxation of vigour is to be distinguished by the situation of the places, which they occupy, with regard to the four principal and ruling places[256]: for, should they be posited in angles, at the places of the respective parts of Fortune, or at those of the luminaries, they will render the casual intimacies or strifes more eminent and remarkable; but, if they be remote from these places, their effects will not be highly conspicuous. The comparative degree of injury or advantage, liable to be received, is to be discerned by means of the good or evil properties of such planets as may be thus in aspect to the aforesaid places.

With respect to servants,[257] the sign of the evil dæmon[258] is considered as the place to which the disposition ruling over them must be referred; and it is to be observed what planets are in aspect to that place, both at the actual time of nativity, and at that of any ingresses made upon it, or oppositions to it; and also, especially, whether the lords of the said sign may be configurated in familiarity with the ruling places of the nativity, or not in familiarity.

CHAPTER VIII

TRAVELLING

The circumstances indicative of travel are to be considered by means of the situation held by both the luminaries, in respect to the angles, and especially, by means of that held by the Moon. For, should she be descending, or cadent from the angles, she will cause journeys and changes of residence: Mars, also, if descending, or cadent from the zenith, will sometimes do the same, provided he may occupy a situation in quartile, or in opposition to the luminaries. And, if the part of Fortune, also, should happen to be placed in signs which produce travelling, the course and practice of the whole life will be engaged [Pg 133]in foreign lands. And further, provided the benefics superintend the aforesaid places, or ascend in succession to them, the engagements abroad will be honourable and lucrative, and the return home speedy and unobstructed: but if, on the contrary, the malefics superintend or ascend in succession to those places, the journey outward will then lead to peril and misfortune, and the return will be replete with difficulty. But it is, at the same time, necessary in all cases to consider the contemperament also, and to observe such of the existing configurations as are more predominant.

It most usually happens, that, if the luminaries be posited in the cadent houses of the oriental quadrants, the travel will take place in the eastern or southern quarters of the world; and that, if placed in western situations, or in an occidental quadrant, travel will be then prosecuted in the northern or western parts. And, should the signs, which operate travel, be themselves single in form, or should the planets, having dominion of them, be singly posited, the journeys will then take place after long intervals, and occasionally only: but, if the said signs be bicorporeal, or double in form or figure, travel will be constantly repeated and continued.

Thus, when Jupiter and Venus may be in dominion over the luminaries, and over the places producing travel, they will render the journeys agreeable, as well as free from

danger: for the traveller will be joyfully forwarded on his way by the magistrates of the country, and by the concurrent assistance of friendly persons; the state of the atmosphere will also be favourable, and he will meet with abundance of accommodation. And, provided Mercury also be present with the planets above specified, utility, profit, presents and honours will likewise be derived from the journey.

Saturn and Mars, if controlling the luminaries, and, especially, if placed distant from each other,[259] will produce great dangers, and at the same time render the journey fruitless and unavailing. Should they be in watery signs, the dangers will arise by shipwreck, or among deserts and wilderness[260]; if in fixed signs, by precipices, and adverse blasts of wind; in tropical and equinoctial signs, by want of food and other necessaries, and by some unwholesome state of the atmosphere; in signs of human form, by robbery, treachery, and various depredations; and, if in terrestrial signs, by the attack of wild beasts, or from earthquakes. And, should Mercury also lend concurrence, the traveller will incur further danger from accusations made against him, as well as from reptiles and venomous stings or bites.

The question, whether the events will be advantageous or injurious in quality, must, however, be further considered by observation (made in [Pg 134]the forms already detailed), of the peculiar properties of the places, in which the lords of employment, of wealth, of the body, or of rank, may be posited. And the periods, at which travelling will take place, are to be considered by the occasional ingress of the five planets.[261]

CHAPTER IX

THE KIND OF DEATH

It now remains to treat of the kind and species of death. It is, however, first to be determined, by the rules already delivered regarding the duration of life,[262] whether

death will ensue from an oriental or occidental position of the predominating influence. And, if death ensue from some oriental position, or meeting of rays, the place of such meeting must be observed, and by means of that place the kind of death is to be distinguished; if from the descension, or setting, of the significator, or prorogator, the place of descension[263] must be considered: because death is to be expected conformable in character to the influences, whatever they may be, which preside over the said places; or, if not any influences should directly preside, it will then be conformable to the influences, of whatever kind, which may be brought first in succession to the places in question: the configuration of the stars, the property of the aforesaid anæretic places, and the nature of the signs and of the terms,[264] are, also, all of them co-operative.

Thus, for example, if the dominion of death be vested in Saturn, he will produce death by means of lingering diseases; cough, rheumatism, flux, ague, disorder of the spleen, dropsy, colic, and complaints in the womb; and, in short, by all such diseases as proceed from the superabundance of cold.

Jupiter effects death by quinsey, inflammation of the lungs, apoplexy, spasm, pains in the head, morbid performance of the heart, and by all diseases arising from the superabundance of air, and from immoderate and impure respiration.

Mars causes death by constant fevers, semitertians, sudden and spontaneous wounds, diseases of the kidneys, expectoration of blood, and hæmorrhages of various kinds; by miscarriage, or abortion, and by childbirth, by erysipelas, and, in short, by such diseases as proceed from abundant and immediate heat.

Venus produces death by disorders of the stomach, and of the liver, by [Pg 135]scurvy and dysentry: also by consumption or wasting away,[265] and by fistula and poison, and by all diseases incident on the superabundance or poverty of moisture, and its corruption.

Lastly, Mercury causes death to proceed from fury, madness, melancholy, epilepsy, falling fits, coughs, and obstructions, and by such diseases as arise from superabundant or disproportionate dryness.

When the lords of death may fully possess their own peculiar and natural properties, and when neither of the malefics may be in elevation above them, death will ensue in the modes above detailed, and in the ordinary course of nature. But a violent and remarkable death will occur when both the malefics, either in conjunction, or in quartile or opposition to each other, may be lords of the anæretic places; or if both, or only one of the two, should attack either both the luminaries, or even only the Sun or the Moon. In such a case, the evil character of the death will proceed from the concurrence of the malefic influence, and its magnitude or remarkable nature from the additional testimony of the luminaries: its quality, also, will be known by means of the rest of the planets and stars in configuration, and by the signs which contain the malefic influence.[266]

Hence, if it happen that Saturn be in fixed signs, and in quartile or opposition to the Sun, and contrary in condition, he will produce death by suffocation, occasioned either by multitudes of people, or by hanging or strangulation: so, likewise, should he be occidental, and the Moon be succedent to him, he will operate the same effects. If he be posited in places or signs of bestial form, the native will be destroyed by wild beasts: and, if Jupiter also offer testimony, being at the same time badly afflicted, the death will then occur in public, and by day; for example, by being exposed to combats with wild beasts. If Saturn be posited in opposition to either of the luminaries in the [Pg 136]ascendant,[267] he will cause death in prison: if he be configurated with Mercury, and especially if near the constellation of the Serpent in the sphere, and in terrestrial signs of the zodiac, he will produce death by venomous wounds or bites, and by reptiles and wild beasts. And, should Venus also attach herself to Saturn and Mercury thus combined, death will then ensue by poison or female treachery. If Saturn be in Virgo or Pisces, or watery signs, and configurated with the Moon, he will operate death by means

of water, by drowning and suffocation; and, if found near Argo, by shipwreck. Should he be in tropical or quadrupedal signs, and the Sun be either in conjunction with him, or in opposition; or if, instead of the Sun, Mars should so present himself, death will be caused by the fall of houses or buildings; and, if posited in the mid-heaven, death will happen by falls from heights or precipices. These are the various effects of Saturn, when configurated as described.

Mars, if in signs of human form, and posited in quartile or in opposition to the Sun or Moon, and contrary in condition, will operate death by slaughter, either in civil or foreign war, or by suicide: if Venus add her testimony, death will be inflicted by women, or by assassins in the employment of women: and, should Mercury also be configurated with them, death will happen from robbers, thieves, or highwaymen. If Mars be in mutilated or imperfect signs, or near the Gorgon[268] of Perseus, he will produce death by decapitation, or by mutilation of limb. If found in Scorpio or Taurus, he will cause death by surgical amputation, burning or searing, or also by spasms or convulsions. Should he be found in the mid-heaven, either above or below the earth, death will be inflicted by crucifixion or impalement, and especially if he be in the vicinity of Cepheus or Andromeda. If descending, or in opposition to the ascendant,[269] he will produce death by fire: and, if in quadrupedal signs, by falls and fractures. Should Jupiter, however, bear testimony to Mars, and be at the same time afflicted, death will ensue from the wrath of princes and kings, and from judicial condemnation.

If it happen that the malefics be in concurrence with each other in the first instance, and afterwards in mutual opposition, in any of the aforesaid situations, the evil character of the death will be yet further augmented; but its species or quality, and its dominion, will depend upon that one which may be in occupation of the anæretic place. And, if both the malefics claim prerogative in the anæretic places, the bodies of persons who thus die will be cast abroad without interment, and will be devoured by beasts and birds: these circumstances will especially ensue, when the malefics may be found in signs

similar in form to beasts and birds; and provided not any one of the benefics should offer testimony to the place below the earth,[270] nor to the anæretic places.[Pg 137]

Lastly, death will occur in foreign lands, when it may happen that the planets controlling the anæretic places may be posited in cadent houses; especially if the Moon be present in the said places also, or if she be found in quartile or in opposition.[271]

CHAPTER X

THE PERIODICAL DIVISIONS OF TIME

In addition to the foregoing brief observations, applicable to the various forms of death, further attention is demanded with respect to the division of time, which requires to be contemplated in its natural order and succession.

Now as, in all genethlialogical cases, a certain common and general arrangement, affecting the region or country and the race or generation, is pre-supposed to be in operation, to which arrangement particular inferences, relating to the form of the body, the properties of the mind, and national habits and variations, must each be subservient; and as, in these respects, certain causes more general and predominating are pre-supposed in existence before particular causes, due care must consequently be taken, in order to make an inference consistent with the course of nature, to observe always the original and predominating cause, and never to lose sight of it; lest some similarity in nativities (if any such should exist) might induce an assertion when the original predominating cause proceeding from the region itself has been overlooked, that the native of Æthiopia will be born of white complexion, and with long and straight hair; or, on the other hand, that the native of Germany or of Gaul will be black in [Pg 138]complexion, and have curled hair; or, that the said nations are polished in manners, and cultivate learning, but that the people of Greece are barbarous and illiterate: and so,

in short, of any other countries; without duly considering the national differences and variations in their several courses of life. So also, with regard to the division of time, it is in the same manner essential to consider the different qualities of the several ages of life, and to pre-determine the appropriate fitness of every age to such events as may be expected: in order to avoid the gross error which might arise from a merely vague consideration of the subject, by attributing to infancy some deed or circumstance of too complete a nature and belonging rather to manhood, or by ascribing to extreme old age the procreation of children, or some other action belonging to youth; and to adapt, on the contrary, to each separate age such circumstances as seem, by due observation of the periods, to be suitable and appropriate thereto.

The mode of consideration[272] applicable to human nature is universally one and the same; and it is analogous to the arrangement of the seven planetary orbs.[273] It, therefore, duly commences with the first age of human life, and the first sphere next above the earth, that of the Moon; and it terminates with the final age of man, and the last of the planetary spheres, which is that of Saturn; and, in fact, it accordingly happens that the appropriate qualities of each sphere take effect in a corresponding age of life, each age being subjected to one particular sphere. These observations are necessary, because the general divisions of time must be considered by means of the spheres, as a primary arrangement; although minor distinctions are to be made by means of the existing peculiarities found in nativities.

Hence, the first age of infancy, which endures for four years, agreeing in number with the quadrennial period of the Moon, is consequently adapted to her; being in its nature moist and incompact, presenting rapidity of growth, being nourished by moist things, and possessing a highly variable habit. Its mental incompleteness is likewise in accordance with its familiar relation to the Moon, and her operative influence.

The age after this continues for ten years, and accommodates itself to the second sphere, that of Mercury. In this period, the intellectual and reasoning faculties of the

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mind begin to take their character, imbibing the seeds of learning, and developing, as it were, the elements and germs of the genius and abilities, and their peculiar quality. The mind is also roused to discipline and instruction, and to its first exercises.

Venus corresponds with the next and third age, which lasts throughout the following eight years, the number of her own period: from her, the movement of the seminal vessels originates, as well as an unrestrained impetuosity and precipitancy in amours.[Pg 139]

The fourth and adult age next succeeds, and is subject to the fourth sphere, that of the Sun: it endures for nineteen years, according to the Sun's number. Authority of action now commences in the mind, the career of life is entered upon, distinction and glory are desired, and puerile irregularities are relinquished for more orderly conduct, and the pursuit of honour.

Mars, next after the Sun, claims the fifth age, that of manhood, agreeing in duration with his own period, viz. fifteen years. He induces greater austerity of life, together with vexation, care, and trouble.

Jupiter occupies the sixth sphere, and influences the maturer age, during the twelve years corresponding to his own period. He operates the relinquishment of labour, of hazardous employment and tumult, and produces greater gravity, foresight, prudence, and sagacity, favouring the claim to honour, respect, and privilege.

Saturn, moving in the last sphere, regulates the final old age, as agreeing with its chilliness. He obstructs the mental movements, the appetites and enjoyments; rendering them imbecile and dull, in conformity with the dullness of his own motion.

The common properties attributable to the various times of life are subject, in a general manner, to this previous adaptation; but there are particular periods, arising from the respective peculiarities of nativities, which also require determination, and must be ascertained from the ruling prorogations; that is to say, from the whole of them,

and not from any single one only, as in the case of the duration of life. For example, prorogation made from the ascendant is to be applied to events affecting the body, and to travelling, or change of residence; that from the part of Fortune, to incidents affecting the substance or wealth; that from the Moon, to actions of the mind, and to communion[274] and cohabitation; that from the Sun, to dignities and glory; and that from the mid-heaven, to other particular circumstances of life, such as employment, friendship, and the possession of children. So that thus, at one and the same time any single planet, whether benefic or malefic, will not possess the sole dominion; for many conflicting events frequently occur at the same period, and a person may, at one and the same time, lose a kinsman, yet inherit his substance; or be at once ill in health, yet prosperous and advantageously established in regard to fortune; or be struggling with adversity and in want, yet, notwithstanding, be also a father and beget children; or he may experience other similar contrarieties: because individuals are subject to occurrences which may affect either the body, the mind, the rank, or the condition of wealth, and which are not altogether fortunate or unfortunate at the same period. Something of the kind will, however, frequently happen in cases of perfect good fortune or distress, when [Pg 140]meetings of all the benefics or malefics may concur in all or most of the prorogations. Still such cases are but rare, because human nature in general is not subjected to the extremity either of good or evil, but rather to their moderate alteration and counter-change.

The prorogatory places must, therefore, be separately distinguished in the mode before pointed out; and the planets meeting the prorogations must again be all taken into consideration: not only those which may be anæretic (as in the case of the duration of life), nor those only which may be configurated bodily,[275] or in opposition or quartile, but also those in trine or sextile. And, first, the times in each prorogation will be governed by the planet occupying or configurated with the actual prorogatory degree itself: if, however, there be found no planet thus constituted, the nearest preceding

planet will govern the times until another, which may be in aspect to the degree following in the order of the signs, shall take them; and this one, again, will do the same until the next in succession shall take them.[276] The like rule obtains with respect to any other planets received into dominion, and with respect to those in occupation of the terms.

Further, in prorogations of the ascendant, the degrees of distances will be equal in number to the ascensional times of the particular latitude; but, in prorogation, from the mid-heaven, to the times of culmination; and, in other prorogations, they will be in proportion to the ascensions, or descensions, or culminations, and will depend on their proximity to the angles; as has been already said in treating of the duration of life.[277]

The arbiters of general times are to be determined by the foregoing method; but arbiters of annual periods as follows: viz. after the number of years which have elapsed since the birth has been ascertained, the amount is to be projected from each place of prorogation, in the succession of the signs, at the rate of one sign for a year,[278] and the lord[Pg 141] of the last sign[279] is to be assumed as arbiter. And, with regard to periods reckoned by months, the same rule is to be observed: for in this case also, the number of the month, as counted from the month of the nativity, is to be projected from such places as possess the dominion of the year, in the proportion of twenty-eight days per sign. So, likewise, in the case of periods reckoned by days, the number of the day, counted from the day of birth, must be projected from the monthly places of dominion, allowing for each sign two days and a third.[280]

It is, however, necessary to notice the ingresses made on places allotted to different periods; for they take effect in no small degree on the events of the period. Thus, the ingresses made by Saturn, on places of general periods, require special observation; those made by Jupiter, on places of annual periods; those made by the Sun, Mars, Venus, and Mercury, on monthly places; and the Moon’s transit over daily places. It must also be remembered, that arbiters of general periods are chiefly paramount over

the events; and that, to their influence, the arbiters of particular periods (each of whom acting by its own proper nature) present either co-operation or obstruction; and that the ingresses also operate on events, by increasing or diminishing their force and extent.[281]

The general characteristic property, and the duration of the period, will be indicated by the place of prorogation, as also by the lord of the general times, and by the planet in possession of the terms; by means of the familiarity subsisting, from the actual birth, between each planet, and the places of which they may have respectively and originally taken dominion. The arbiters of time will also give indication whether the event will be good or evil, by means of their own naturally benefic or malefic property and temperament, and by their original familiarity or variance with the place of which they have become lords. But the period, at which the event will become more [Pg 142]strongly evident, is shown by the relative positions of the annual and monthly signs towards the places wherein the causes exist, and also by the ingresses of the planets.[282]

The mode in which the Sun and Moon may be disposed, in reference to the signs relating to annual and monthly periods, is also indicative. For example, should they, from the date of the nativity, be posited in concord with the operative places, and keep a position of concord at the ingresses, they will produce good; but, if adversely posited, evil. And also, if they be not in concord with the said places, and provided they be contrary in condition, and in opposition or in quartile, to the transits, they will cause evil: should they, however, not be in quartile, nor in opposition, but otherwise configurated, their influence then will not be equally malefic.

Should it happen that the same planets may be lords of the times,[283] as well as of the ingresses, the effect will be extreme and unalloyed, if of a favourable nature; and more particularly unmitigated, if evil. And should the said planets be not only lords of the times, but likewise hold dominion from the date of the nativity, and provided also that all the prorogations, or most of them, should tend to, or depend on, one and the same place, or, should the prorogations not be so constituted, yet notwithstanding, if the

meetings occurring at the periods be found to be either all, or most of them, benefic or malefic, they will wholly produce, in all respects, good or evil fortune, respectively.

It is in this method, which preserves a natural order and succession, that times and seasons require to be contemplated.[Pg 143]

And now, in adverting to the scope allotted to this work in its commencement, all further adaptation of the forms of events liable to take effect at particular times will here be relinquished; because the operative influences which the stars exercise in all events, whether general or particular, may be arranged in proper order, if care be taken that the causes set forth by the Rules of Science, and the causes arising from any existing commixture, be duly combined and blended together.

THE END

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APPENDIX

NO. I

ALMAGEST;

BOOK VIII, CHAP. IV

The various constellations of the fixed stars having now been duly described, their aspects remain to be investigated.

Independently of the steadfast and immutable aspects which the said stars preserve among themselves, either rectilinearly, or triangularly, or by other similar forms,[284] they have also certain aspects considered as referring exclusively to the

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planets and the Sun and Moon, or parts of the zodiac; certain others to the earth only; and others, again, to the earth, the planets and the Sun and Moon, or parts of the zodiac, combined.

With regard to the planets only, and parts of the zodiac, aspects are properly considered as made to them by the fixed stars, when the said planets and fixed stars may be posited on one and the same of those circles which are drawn through the poles of the zodiac; or, also, if they be posited on different circles, provided a trinal or sextile distance between them may be preserved; that is to say, a distance equal to a right angle and a third part more, or a distance equal to two-thirds of a right angle; and provided, also, that the fixed stars be on such parts of the circle as are liable to be transited by any one of the planets. These parts are situated within the latitude of the zodiac, which circumscribes the planetary motions. And as far as the five planets are concerned, the aspects of the fixed stars depend upon the visible mutual conjunctions, or configurations, made in the forms above prescribed; but, with respect to the Sun and Moon, they depend on occultations, conjunctions, and succedent risings of the stars. Occultation is when a star becomes invisible by being carried under the rays of the luminary; conjunction, when it is placed under the luminary's centre; and succedent rising, when it begins to reappear on issuing out beyond the rays.

In regard to the earth only, the aspects of the fixed stars are four in number, and are known by the common term of angles: to speak, however, more particularly, they are the oriental horizon, the meridian or mid-heaven above the earth, the occidental horizon, and the meridian or mid-heaven below the earth. And in that part of the earth where the equator is in the zenith, the whole of the fixed stars are found to rise [Pg 145]and set, and to be above as well as below the earth, once in each revolution; because the situation of the poles of the equator, being in this manner on the plane of the horizon, thereby prevents the constant visibility or invisibility of any one of the parallel circles. But in other parts of the earth, where the pole of the equator is in the zenith, the fixed stars can

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never set nor rise; because the equator itself is then on the plane of the horizon, and circumscribes the two hemispheres (which it thus creates, one above and the other below the earth) in such a manner, that in one revolution every star must twice transit the meridian, some of them above, others below the earth. In other declinations, however, between these extreme positions of the equator, as just mentioned, there are certain of the circles always visible, and others never visible; consequently, the stars intercepted between the first of such circles and the poles can neither rise not set, but must, in the course of one revolution, twice transit the meridian; above the earth, if the said stars be on a circle always visible; but below the earth, if on a circle never visible. The other stars, however, situated on the greater parallels, both rise and set, and are found in each revolution once on the meridian above the earth, and once on that below the earth. In all these cases, the time occupied in proceeding round from any angle to the same again, must be everywhere equal in its duration, for it is marked by one sensible revolution; and the time occupied in passing from either meridianal angle to the angle diametrically opposite, is also everywhere equal; because it is marked by the half of one revolution. So, also, the passage from either horizontal angle to its opposite angle is again effected in the same equal portion of time, wherever the equator may be in the zenith, for it is then likewise marked by the half of an entire revolution; because on such a position of the equator, all the parallels are then divided, as well by the horizon as by the meridian, into two equal parts. But in all other declinations, the time of passage of a semicircle above the earth is not equal to that of its passage below the earth, except only in the case of the equinoctial circle itself, which, in an oblique sphere, is the only one divided by the horizon into two equal parts, all others (its parallels) being bisected into dissimilar and unequal arcs. It follows, accordingly, that the time contained in the space between rising or setting, and either meridian, must be equal to the time between the *same* meridian and rising and setting; because the meridian divides equally such portions of the parallels as are above or under the earth. But in proceeding in an *oblique* sphere, from rising or setting to *either* meridian, the time occupied must be

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unequal; and in a right sphere, equal, because the entire portions above the earth are, in a *right* sphere only, equal to those below the earth; whence, for instance, in a right sphere, whatever stars may be together on the meridian must also all rise and set together, until their progress becomes perceptible by the poles of the zodiac; while, on the other hand, in an oblique sphere, whatever stars may be together on the [Pg 146]meridian can neither all rise together nor set together; for the more southern stars must always rise later than those which are more northern, and set earlier.[285]

The aspects made by the fixed stars, in regard to the planets or parts of the zodiac, and the earth combined, are considered, in a general manner, by the rising, or meridianal position, or setting of the same fixed stars in conjunction with any planet or part of the zodiac; but their aspects are properly distinguishable, by means of the Sun, in the nine following modes:—

1. The first is called matutine subsolar, when the star is found together with the Sun in the oriental horizon. Of this aspect, one species is called the oriental, invisible, and succedent rising; when the star, at the commencement of its occultation, rises immediately after the Sun: another is called the precise oriental co-rising; when the star is found in partile conjunction with the Sun in the oriental horizon: another is the oriental, precedent, and visible rising; when the star, beginning to appear, rises before the Sun.

2. The second aspect is termed matutine location in the mid-heaven; when the star is found on the meridian, either above or below the earth, while the Sun is on the oriental horizon. And of this aspect, one species is called a succedent and oriental location in the mid-heaven, invisible; when, immediately after the Sun's rising, the star shall be found on the meridian: another is the precise oriental location in the mid-heaven; when, exactly as the Sun rises, the star is at the same time on the meridian; another is the oriental precedent location in the mid-heaven; when the star first shall come to the meridian above the earth, and the Sun may then immediately rise.

3. The third, called matutine setting, is when the Sun may be actually in the oriental horizon, but the star in the occidental. One of the forms of this aspect is called the oriental, succedent setting, invisible; when the star sets immediately after the Sun's rising: another is the precise oriental co-setting, when the star sets at the moment of the Sun's rising: another is the oriental, precedent, and visible setting, when the Sun does not rise until immediately after the setting of the star.

4. The fourth aspect is named meridianal subsolar, and takes place when the Sun is actually on the meridian, but the star on the oriental horizon. Of this, one is diurnal and invisible; when the star rises while the Sun is posited on the meridian above the earth: another is nocturnal and visible; when the star rises while the Sun is placed on the meridian below the earth.

5. The fifth is called meridianal location in the mid-heaven; when the Sun, as well as the star, may be at the same time on the meridian. Of this aspect, two sorts are diurnal and invisible; when the star is on the meridian above the earth, together with the Sun, or on that below [Pg 147]the earth, diametrically opposite to the Sun. Two also are nocturnal, and of these, one is invisible; when the star is on the meridian under the earth, together with the Sun: the other, however, is visible; when the star is on the meridian above the earth, diametrically opposite to the Sun.

6. The sixth is meridianal setting; when the star is found on the occidental horizon, while the Sun is on the meridian. Of this, one species is diurnal and invisible; when the star sets while the Sun is above the earth on the meridian: the other is nocturnal and visible; when the star sets while the Sun is on the meridian below the earth.

7. The seventh aspect is called vespertine subsolar; when the star is found on the oriental horizon, while the Sun is posited on the occidental horizon. One form of this aspect is the vespertine succedent rising, visible; when the star rises immediately after sunset: another is the precise vespertine co-rising; when the star rises and the Sun sets

at one and the same time: another is the precedent, vespertine rising, invisible; when the star rises immediately before the Sun sets.

8. The eighth is named vespertine location in the mid-heaven; when the star is on the meridian, either above or below the earth, while the Sun is placed on the occidental horizon. Of this aspect, one kind is called a visible vespertine location in the mid-heaven; when the star is found there immediately after sunset: another is the precise vespertine location in the mid-heaven; when the star is found there at the moment of sunset; another is the vespertine precedent location in the mid-heaven, invisible; when the star arrives there immediately before sunset.

9. The ninth aspect is called vespertine setting; when the star, together with the Sun, is on the occidental horizon. One form of this aspect is the vespertine, succedent and visible setting; when the star, at the commencement of its occultation, sets immediately after the Sun: another is the precise vespertine setting; when the star sets at the same moment with the Sun: another is the precedent, invisible setting; when the star, before it emerges from its occultation, sets before the Sun.

NO. II

ALMAGEST; BOOK II.

EXTRACT FROM CHAP. IX

Of Circumstances regulated by Ascensions

In any climate whatever, the magnitude of a given day or night is to be computed by the number of ascensional times proper to that particular climate. For example, the magnitude of the day will be ascertained by numbering the times between the Sun's zodiacal degree and the degree [Pg 148]diametrically opposite, in the succession of the

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signs; and that of the night, by numbering the times, from the degree diametrically opposite to the Sun, onwards, in the order of the signs, to be the degree actually occupied by the Sun: because, by dividing the respective amounts of these times so obtained, by fifteen, the number of equatorial hours belonging to each space will be exhibited; and if the division be made by twelve, instead of fifteen, the result will show the numbers of degrees equivalent to one temporal hour of either of the said spaces respectively.[286]

The magnitude of any temporal hour may be, however, more easily found by referring to the annexed Table of Ascensions, and taking the difference between the respective aggregate numbers, inserted therein under the heads of the equinoctial parallel or right sphere, and of any particular climate for which the magnitude of the temporal hour is required; and, if the said hour be a diurnal hour, the aggregate times as stated against the zodiacal degree occupied by the Sun; but, if nocturnal, those stated against the degree diametrically opposite, are to be compared; and the sixth part of the difference between them is to be added, if the said degree be in the northern signs, to the fifteen times of an equatorial hour; but subtracted therefrom, if in the southern signs. The amount thus obtained will be the required number of degrees of the temporal hour in question.[287]

[Pg 149]And if it be required to reduce the temporal hours of any given day or night, in a certain climate, into equatorial hours, they must be multiplied by their proper horary times, whether diurnal or nocturnal, as the case may be; the product is then to be divided by fifteen, and the quotient will necessarily be the number of equatorial hours in the climate in question, on the given day or night.[288] On the other hand, equatorial hours are also to be reduced into temporal hours by being multiplied by fifteen, the product of which is to be divided by the horary times proper to the given day or night in the said climate.

The degree ascending in the ecliptic, at any given temporal hour, may also be ascertained by multiplying the number of temporal hours since sunrise, if the given hour be diurnal, but if nocturnal, since sunset, by their proper horary times; and the product is to be added, in the succession of the signs, to the aggregate number (as shown by the ascensions proper to the climate) of the Sun's degree, if the given hour be diurnal, but, if nocturnal, to that of the degree diametrically opposite, and that particular degree of the ecliptic which shall correspond with the total number thus found in the ascensions of the climate will be the degree then ascending.[289]

But, in order to ascertain the degree on the meridian above the earth, the number of temporal hours since the preceding noon are also to be multiplied by their proper horary times, and the product is to be added to the aggregate number of the Sun's right ascension; and that degree of the ecliptic, with which the total number as found in the aggregate [Pg 150]times of right ascension shall correspond, will then be on the meridian.[290] The degree on the oriental horizon will, however, also show what degrees occupy the meridian; for, by subtracting 90 times (the amount of the quadrant) from the aggregate number ascribed to the said ascending degree in the Table proper to the climate, the number so reduced will be found, in the aggregate times of the Table of Right Ascension, to correspond with the degree on the meridian. And again, on the other hand, by adding 90 to the aggregate times ascribed by right of ascension to the degree on the meridian above the earth, the degree ascending may be obtained, for it will be that degree which corresponds to that total number, as stated in the Table proper to the climate.[291]

The Sun always preserves an equal distance in equatorial hours from all parts of the same meridian; but his distance in equatorial hours from different meridians varies according to the degrees of distance between meridian and meridian.

The foregoing extracts have been made to show the entire agreement between the astronomy of the Tetrabiblos and that of the Almagest. The Tables herein given from

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the latter work are, of course, now, in some degree, superseded by others of modern calculation, infinitely more complete.[Pg 151]

TABLE OF LATITUDES, AS SHOWN BY THE DURATION OF THE LONGEST DAY

[From the Almagest.]

LONGEST DAY.		LATITUDE.	
H.	**M.**	**D.**	**M.**
12	0	0	0
12	15	4	15
12	30	8	25
12	45	12	30
13	0	16	27
13	15	20	14
13	30	23	51
13	45	27	40
14	0	[292]30	22
14	15	33	18
14	30	36	0
14	45	38	35
15	0	40	56
15	15	43	5
15	30	45	1
15	45	46	51

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LONGEST DAY.		LATITUDE.	
H.	**M.**	**D.**	**M.**
16	0	48	32
16	15	50	15
16	30	[293]51	35
16	45	52	50
17	0	54	1
17	15	55	0
17	30	56	0
17	45	57	0
18	0	58	0
18	30	59	30
19	0	61	0
19	30	62	0
20	0	63	0
21	0	64	30
22	0	65	30
23	0	66	0
24	0	66	10

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EXTRACT FROM THE TABLE OF ASCENSION (CONTAINED IN THE ALMAGEST), CALCULATED FOR EVERY TENTH DEGREE OF THE ZODIAC.

SIGNS	Tenth Degree	In a Right Sphere under the Equator, Diurnal Arc 12 Hours.		3rd Climate, thro' Lower Ægypt, Lat. 30° 22′ N. Diurnal Arc 14 Hours.		8th Climate thro' Southern Britain, Lat. 51° 30′ N. Diurnal Arc 16 Hs. 20 Mts.	
		Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.
		D.	M.	D.	M.	D.	M.
	10	9.10	9.10	6.48	6.48	4.05	4.05
Aries	20	9.15	18.25	6.55	13.43	4.12	8.17
	30	9.25	27.50	7.10	20.53	4.31	12.48
	10	9.40	37.30	7.33	28.26	4.56	17.44
Taurus	20	9.58	47.28	8.02	36.28	5.34	23.18
	30	10.16	57.44	8.37	45.05	6.25	29.43
	10	10.34	68.18	9.17	54.22	7.29	37.12
Gemini	20	10.47	79.05	10.00	64.22	8.49	46.01
	30	10.55	90.00	10.38	75.00	10.14	56.15
Cancer	10	10.55	100.55	11.12	86.12	11.36	67.51

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SIGNS	Tenth Degree	In a Right Sphere under the Equator, Diurnal Arc 12 Hours.		3rd Climate, thro' Lower Ægypt, Lat. 30° 22′ N. Diurnal Arc 14 Hours.		8th Climate thro' Southern Britain, Lat. 51° 30′ N. Diurnal Arc 16 Hs. 20 Mts.	
		Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.
		D.	M.	D.	M.	D.	M.
	20	10.47	111.42	11.34	97.46	12.45	80.36
	30	10.34	122.16	11.51	109.37	13.39	94.15
	10	10.16	132.32	11.55	121.32	14.07	108.22
Leo	20	9.58	142.30	11.54	133.26	14.22	122.44
	30	9.40	152.10	11.47	145.13	14.24	137.08
	10	9.25	161.35	11.40	156.53	14.19	151.27
Virgo	20	9.15	170.50	11.35	168.28	14.16	165.45
	30	9.10	180.00	11.32	180.00	14.15	180.00
	10	9.10	189.10	11.32	191.32	14.15	194.15
Libra	20	9.15	198.25	11.35	203.07	14.18	208.33
	30	9.25	207.50	11.40	214.47	14.19	222.52
	10	9.40	217.30	11.47	226.34	14.24	237.16
Scorpio	20	9.58	227.28	11.54	238.28	14.22	251.38
	30	10.16	237.44	11.55	250.23	14.07	265.45

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SIGNS	Tenth Degree	In a Right Sphere under the Equator, Diurnal Arc 12 Hours.		3rd Climate, thro' Lower Ægypt, Lat. 30° 22′ N. Diurnal Arc 14 Hours.		8th Climate thro' Southern Britain, Lat. 51° 30′ N. Diurnal Arc 16 Hs. 20 Mts.	
		Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.	Times of Ascen.	Aggregate Times.
		D.	M.	D.	M.	D.	M.
	10	10.34	248.18	11.51	262.14	13.39	279.24
Sagittarius	20	10.47	269.05	11.34	273.48	12.45	292.09
	30	10.55	270.00	11.12	285.00	11.36	303.45
	10	10.55	280.55	10.38	295.38	10.14	313.59
Capricornus	20	10.47	291.42	10.00	305.38	8.49	322.48
	30	10.34	302.16	9.17	314.55	7.29	330.17
	10	10.16	312.32	8.37	323.32	6.25	336.42
Aquarius	20	9.58	322.30	8.02	331.34	5.34	342.16
	30	9.40	332.10	7.33	339.07	4.56	347.12
	10	9.25	341.35	7.10	346.17	4.31	351.43
Pisces	20	9.15	350.50	6.55	353.12	4.12	355.55
	30	9.10	360.00	6.48	360.00	4.05	360.00

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NO. III

THE CENTILOQUY,

OR

HUNDRED APHORISMS OF CLAUDIUS PTOLEMY[294];

OTHERWISE CALLED,

THE FRUIT OF HIS FOUR BOOKS

I. Judgment must be regulated by thyself, as well as by the science; for it is not possible that particular forms of events should be declared by any person, however scientific; since the understanding conceives only a certain general idea of some sensible event, and not its particular form. It is, therefore, necessary for him who practices herein to adopt inference. They only who are inspired by the deity can predict particulars.

II. When an enquirer shall make mature search into an expected event, there will be found no material difference between the event itself and his idea of it.

III. Whosoever may be adapted to any particular event or pursuit, will assuredly have the star indicative thereof very potent in his nativity.

IV. A mind apt in knowledge will discover truth more readily than one practised in the highest branches of science.

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V. A skilful person, acquainted with the nature of the stars, is enabled to avert many of their effects, and to prepare himself for those effects before they arrive.

VI. It is advantageous to make choice of days and hours at a time well constituted by the nativity. Should the time be adverse, the choice will in no respect avail, however favourable an issue it may chance to promise.

VII. The mingled influences of the stars can be understood by no one who has not previously acquired knowledge of the combinations and varieties existing in nature.

VIII. A sagacious mind improves the operation of the heavens, as a skilful farmer, by cultivation, improves nature.

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IX. In their generation and corruption forms are influenced by the celestial forms, of which the framers of talismans consequently avail themselves, by observing the ingresses of the stars thereupon.

X. In the election of days and hours, make use of the malefics, to the same moderate extent as the skilful physician would use poisons in order to perform cures.

XI. A day and hour are not to be elected until the quality of the object proposed shall be known.

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XII. Love and hatred prohibit the true accomplishment of judgments; and, inasmuch as they lessen the most important, so likewise they magnify the most trivial things.

XIII. In every indication made by the constitution of the heavens, secondary stars, whether auxiliary or injurious thereto, are also to be used.

XIV. The astrologer will be entangled in a labyrinth of error, when the seventh house and its lord shall be afflicted.

XV. Signs cadent from the ascendant of any kingdom are the ascendants of that kingdom's enemies. But the angles and succedent houses are the ascendants of its friends. It is the same in all doctrines and institutions.

XVI. When the benefics may be controlled in the eighth house, they bring mischief by means of good men: if, on the other hand, they be well affected, they will prevent mischief.

XVII. Give no judgment as to the future life of an aged person, until the number of years he may live shall have been reckoned.

XVIII. If, while a benefic may ascend, both the luminaries should be in the same minute[295], the native will be equally and highly prosperous in all things which can befall him. So, likewise, if the luminaries be mutually opposed by the east and west. But the

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contrary effect will be produced, should a malefic be on the ascendant.

XIX. The efficacy of purgation is impeded by the Moon's conjunction with Jupiter.

XX. Pierce not with iron that part of the body which may be governed by the sign actually occupied by the Moon.

XXI. When the Moon may be in Scorpio or Pisces, purgation may be advantageously used, provided the lord of the ascendant be coupled with some star posited below the earth. If he be coupled with a star placed above the earth, the potion swallowed will be vomited up.

XXII. Neither put on nor lay aside any garment for the first time, when the Moon may be located in Leo. And it will be still worse to do so, should she be badly affected.

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XXIII. Aspects between the Moon and stars give the native much activity; and, if the stars be in power, they indicate an efficient, but if weak an inert, excitation to action.

XXIV. An eclipse of the luminaries, if in the angles of the nativity, or of an annual revolution, is noxious; and the effects take place according to the space between the ascendant and the place of eclipse. And

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as, in a solar eclipse, a year is reckoned for an hour, so likewise, in a lunar eclipse, a month is reckoned for an hour.

XXV. The progression of a significator, posited in the mid-heaven, is to be made by right ascension; of another posited in the ascendant, by the oblique ascension of the particular latitude.

XXVI. There is obvious concealment in the case, if the star significative of any particular affair be in conjunction with the Sun, either under the earth or in a place foreign to its own nature. On the other hand, there is manifestation, should the star be raised to elevation out of its depression, and be located in its own place.

XXVII. Venus gives pleasure to the native in that part of the body which may be ruled by the sign she occupies. It is the same with other stars.

XXVIII. When the Moon may not hold a familiarity with two planets, as is desirable, care should be taken to connect her, if possible, with some fixed star combining their qualities.

XXIX. The fixed stars grant extremely good fortune, unconnected with the understanding; but it is most commonly marked by calamities, unless the planets also agree in the felicity.

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XXX. Observe the creation of the first king of any dynasty; for if the ascendant at that creation should agree with the ascendant of the nativity of the king's son, he will succeed his father.

XXXI. When the star ruling over any kingdom shall enter into a climacterical place, either the king, or some one of the chief men of his kingdom, will die.

XXXII. Concord between two persons is produced by an harmonious figuration of the stars, indicative of the matter whereby good will is constituted, in the nativity of either person.

XXXIII. Love and hatred are discernible, as well from the concord and discord of the luminaries, as from the ascendants of both nativities: but obeying signs increase good will.

XXXIV. If the lord of the place of the new Moon be in an angle, he is indicative of the events liable to happen in that month.

XXXV. When the Sun arrives at the place of any star, he excites the influence of that star in the atmosphere.

XXXVI. In the foundation of cities, consider the fixed stars which may seem to contribute thereto; but in the erection of houses, observe the planets. The kings of every city which has Mars in culmination will most commonly perish by the sword.

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XXXVII. If Virgo or Pisces be on the ascendant, the native will create his own dignity; but if Aries or Libra is on the ascendant, he will cause his own death. The other signs are to be contemplated in the same way.

XXXVIII. Mercury, if established in either house of Saturn, and in power, gives the native a speculative and inquisitive intellect: if in a house of Mars, and especially if in Aries, he gives eloquence.

XXXIX. Affliction of the eleventh house, in the creation of a king, indicates damage in his household and his treasury: affliction of the second house denotes the detriment of his subject's wealth.

XL. When the ascendant is oppressed by the malefics, the native will delight in sordid things, and approve ill-favoured odours.

XLI. Beware the affliction of the eighth house and its lord, at a time of departure; and that of the second house and its lord, at a time of return.

XLII. Should a disease begin when the Moon may be in a sign occupied at the birth by some malefic, or in quartile or opposition to any such sign, such disease will be most severe; and if the malefic also behold the said sign, it will be dangerous. On the other hand, there will be no danger if the Moon be in a place held at the time of birth by some benefic.

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XLIII. The malefic figures of a nation are strengthened by adverse figurations of existing times.

XLIV. It is an evil case if the ascendant of a sick person resist the figuration of his own nativity; and if the time should not bring up any benefic.

XLV. If the ascendant, or principal significators, be not in human signs, the native himself will be also estranged from human nature.

XLVI. In nativities much happiness is conferred by the fixed stars; and also by the angles of the new Moon, and by the place of a kingdom's Part of Fortune, should the ascendant be found in any of them.

XLVII. If a malefic in one nativity fall on the place of a benefic in another nativity, he who has the benefic will suffer damage from him who has the malefic.

XLVIII. If the mid-heaven of a prince be the ascendant of his subject, or if their respective significators be configurated in a benevolent form, they will continue long inseparable. It will be the same, also, should the sixth house of a subject or servant be the ascendant of his prince or master.

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XLIX. If the ascendant of a servant be the mid-heaven in his master's nativity, the master will place so much confidence in that servant as to be ruled by him.

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L. Overlook none of the hundred and nineteen conjunctions; for on them depends the knowledge of worldly operations, whether of generation or of corruption.

LI. Make the sign occupied by the Moon at the time of birth the sign ascending at the conception; and consider that in which she may be posited at the conception, or the opposite one, as the sign ascending at the birth.

LII. Men of tall stature have their lords of nativity in elevation, and their ascendants in the beginnings of signs; but the lords of men of short stature will be found in declination.[296] It must also be seen whether the signs be right or oblique.

LIII. The lords of nativity of slight or thin men have no latitude, but those of stout or fat men have; and, if the latitude be south, the native will be active; if north, inactive.

LIV. In the construction of a building, the principal rulers, if coupled with a star below the earth, will impede the erection.

LV. Mars' evil influence over ships is diminished if he be neither in the mid-heaven nor in the eleventh house; but if in either of those places, he renders the ship liable to be captured by pirates. And if the

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ascendant be afflicted by any fixed star of the nature of Mars, the ship will be burned.

LVI. While the Moon is in her first quarter, withdrawing from her conjunction with the Sun, the bodily humours expand until her second quarter: in her other quarters they decrease.

LVII. If, during a sickness, the seventh house and its lord be afflicted, change the physician.

LVIII. Observe the place of an aspect, and its distance from the ascendant of the year; for the event will happen when the profection may arrive thither.

LIX. Before pronouncing that an absent person shall die, observe whether he may not become intoxicated; before declaring that he shall receive a wound, see whether he may not be let blood; and before saying that he shall find treasure, examine whether he may not receive his own deposit; for the figures of all these things may be similar.

LX. In cases of sickness, observe the critical days, and the Moon's progress in the angles of a figure of sixteen sides. If those angles be well affected, it is favourable for the invalid; if they be afflicted, unfavourable.

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LXI. The Moon is significative of bodily matters, which, in respect of motion, resemble her.

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LXII. By marking exactly the beginning of a conjunction,[297] judgment may be made of the variation of the weather in the ensuing month. It will depend upon the lord of the angle of every figure, for he controls the nature of the atmosphere; assuming also at these times the quality of the existing weather.

LXIII. In the conjunction of Saturn and Jupiter, pronounce according to the nature of that one which may be higher in elevation. Follow the same rule with other stars.

LXIV. After ascertaining the lord of the inquiry, see what power he may have in the annual revolution, or in the ascendant of the new Moon; and pronounce accordingly.

LXV. In the least conjunction, the difference of the mean conjunction, and in the mean conjunction the difference of the greatest conjunction.[298]

LXVI. Consider no profection by itself alone, but make reference also to the qualifications and impediments of the stars.

LXVII. Years are diminished by the imbecility of the receiver.

LXVIII. A malefic, when matutine, signifies an accident; when vespertine, a disease.

LXIX. The native's sight will be impaired if the Moon be opposed to the Sun, and joined with nebulous stars;

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and if the Moon be in the western angle, and both the malefic stars in the eastern angle, the Sun being in an angle also, the native will become blind.

LXX. Insanity is produced if the Moon have no connection with Mercury; and, if neither of them be connected with the ascendant, Saturn being in occupation of the angle by night, but Mars by day, especially if in Cancer, Virgo, or Pisces, a dæmoniac affection will be produced.

LXXI. If both luminaries may be in masculine signs, in the nativities of males, their actions will be consonant with nature; but if so placed in the nativities of females, they increase their action. And Mars and Venus, if matutine, incline to the masculine gender; if vespertine, to the feminine.

LXXII. Matters of education are to be considered by the ascending lords of triplicity; matters of life, by the lords of the conditionary luminary's triplicity.

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LXXIII. If the Sun be found with the Gorgon's head (*Caput Medusæ*), and not aspected by any benefic star, and if there be no benefic present in the eighth house, and the lord of the conditionary luminary be opposed to Mars, or in quartile to him, the native will be beheaded. If the luminary culminate, his body will be maimed or mangled; and if the aspect in quartile

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be from Gemini or Pisces, his hands and feet will be amputated.

LXXIV. Mars, if ascending, uniformly gives a scar in the face.

LXXV. If the Sun be in conjunction with the lord of the ascendant, in Leo, and Mars has no prerogative in the ascendant, and if there be no benefic in the eighth house, the native will be burned.

LXXVI. If Saturn hold the mid-heaven, and the conditionary luminary be opposed to him, the native will perish in the ruins of buildings, provided the sign on the lower heaven be an earthly sign; if it be a watery sign, he will be drowned or suffocated by water: if a human sign, he will be strangled by men, or will perish by the halter or the scourge. Should there, however, be a benefic in the eighth house, he will not suffer death, although he will be brought near it.

LXXVII. Profection of the ascendant is to be made for matters affecting the body; of the Part of Fortune, for extrinsic circumstances; of the Moon, for the connection between the body and the spirit; and of the mid-heaven, for the employment or profession.

LXXVIII. A star often dispenses influence in a place in which it has no prerogative, thus bringing unexpected advantage to the native.

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LXXIX. Whoever has Mars in the eleventh house, does not govern his master.

LXXX. If Venus be in conjunction with Saturn, and have any lord of house in the seventh house, the native will be of spurious origin.

LXXXI. Times are reckoned in seven ways; viz. by the space between two significators; by the space between their mutual aspects; by the approach of one to the other; by the space between either of them and the place appropriated to the proposed event; by the descension of a star, with its addition or diminution; by the changing of a significator; and by the approach of a planet to its place.

LXXXII. When a figure may be equipoised, observe the horoscope (or figure) at the new or full moon, and, if that also be equipoised, be not hasty in giving judgment.

LXXXIII. The time of obtaining a grant indicates the affection between the applicant and his prince; but the seat[299] shows the nature of the office;—

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LXXXIV. And if Mars be lord of the ascendant at the time of entering on possession, and posited in the second house, or coupled with the lord of the second, he brings much mischief.

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LXXXV. Should the lord of the ascendant be configurated with the lord of the second house, the prince will spontaneously create many charges.

LXXXVI. The Sun is the source of the vital power; the Moon, of the natural power.

LXXXVII. Monthly revolutions are made in twenty-eight days, two hours and about eighteen minutes. Judgment is also made by some persons by means of the Sun's progress; that is to say, by his partial equations to that degree and minute which he might hold at the beginning.

LXXXVIII. In making profection of the part of Fortune for a whole annual revolution, a space equal to that between the Sun and Moon is to be reckoned from the ascendant.

LXXXIX. Consider the grandfather's affairs from the seventh house and the uncle's from the sixth.

XC. Should the significator be in aspect to the ascendant, the hidden event or object will correspond in its nature with the ascendant; but if the ascendant be not so aspected, the nature of the event will accord with that of the place in which the significator is posited. The lord of the hour shows its colour; the place of the Moon its time; and, if above the earth, it will be a novel thing; if below, old. The part of Fortune indicates its quantity, whether long or short. The lords

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of the terms, and of the lower heaven and mid-heaven, and of the Moon, shows its substance or value.

XCI. Should the ruler of a sick person be combust, it is an evil portent; and especially if the part of Fortune be afflicted.

XCII. Saturn, if oriental, is not so highly noxious to a sick person; nor Mars, if occidental.

XCIII. Judgment is not to be drawn from any figure until the next conjunction shall have been considered: for principles are varied by every conjunction; and therefore, to avoid error, both the last and the next should be combined.

XCIV. The place of the more potent significator indicates the thoughts of the inquirer.

XCV. The stars rising with the tenth house prove how far the native may be fitted to the occupation which he follows.

XCVI. In an eclipse, such significations as are made nearest the angles, show the events decreed. The nature of the stars in accordance with the eclipse, plants as well as fixed stars, and also the appearances co-ascending, are likewise to be considered, and judgment is to be given accordingly.

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XCVII. The event inquired about will be speedily accomplished, should the lord of the new or full Moon be in an angle.

XCVIII. Shooting stars, and meteors like flowing hair, bear a secondary part in judgments.

XCIX. Shooting stars denote the dryness of the air; and, if they are projected to one part only, they indicate wind therefrom: if to various parts, they indicate diminution of waters, a turbulent atmosphere, and incursions of armies.

C. If comets, whose distance is eleven signs behind the Sun, appear in angles, the king of some kingdom, or one of the princes or chief men of a kingdom, will die. If in a succedent house, the affairs of the kingdom's treasury will prosper, but the governor or ruler will be changed. If in a cadent house, there will be diseases and sudden deaths. And if comets be in motion from the west towards the east, a foreign foe will invade the country: if not in motion, the foe will be provincial, or domestic.

END OF THE CENTILOQUY

NO. IV

THE ZODIACAL PLANISPHERE

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The Reader is desired to refer to the Plate at end of book containing diagrams of the Zodiacal Planisphere, which has been spoken of in the Note in p. 99.

Fig. 1 is the Planisphere adjusted for the northern latitude of 30° 22′ (where the longest day consists of fourteen equatorial hours), agreeably to the "Exemplification" given by Ptolemy in Chapter XV, Book 3. It represents that portion of the celestial sphere which is contained between the tropics: the central horizontal line is the equator; the curved line extending longitudinally from east to west is the ecliptic; the central perpendicular line is the meridian, or cusp of the 10th house; the other short lines, cutting the equator transversely, are the cusps of the other houses; that of the 1st house being the eastern horizon; that of the 7th, the western horizon. Hence, the distance from the 1st house to the meridian, or from the meridian to the 7th house, shows the semi-diurnal arc of any parallel of declination in the ecliptic; and the distance of the 7th house to the 4th, or from the 4th to the 1st, shows the semi-nocturnal arc. The distance from the cusp of one house to that of the next, taken on the [Pg 162]same parallel, is also equal to two temporal hours; thus, for instance, in the latitude above quoted, the semi-diurnal arc of 0° ♊ is 6 h. 50 m., or 102° 39′ of the equator; consequently the diurnal temporal hour is equal to one equatorial hour and eight minutes, or to 17° 6′ of the equator.

In his first example, Ptolemy directs 0° ♉ to be placed on the ascendant, so that the beginning of ♑ may be on the mid-heaven; 0° ♊ must, therefore, fall on the point A, distant from the mid-heaven 147° 44′ of the equator, as measured by the line AB; because every point in the sphere always preserves one and the same parallel with the equator; and 0° ♊, in passing to the mid-heaven, must proceed along the line AB. In the present case, however, it is required to know how long 0° ♊ will be in coming to the ascendant, the given position of 0° ♉. Now 0° ♊ will be on the ascendant when it arrives at the point G; therefore the distance from A to C is the amount of the prorogation between 0° ♉ (when posited on the ascendant) and 0° ♊, and it is equal

to 45° 5′ of the equator. In the second example, 0° ♉ is placed on the mid-heaven, which position must be at D, so that 0° ♊ must necessarily be at E; and the distance from E to B, equal to 57° 44′ of the equator, is the prorogation between 0° ♉ and 0° ♊, when 0⁴ ♉ is on the mid-heaven. In the third example, 0° ♉ is supposed to be on the 7th house, descending, at F, so that ♓ is on the mid-heaven, and 0° ♊ at the point G, in advance of the mid-heaven 32° 16′ of the equator, as shown by the distance BG. Now it is required to bring 0° ♊ to the 7th house (the place of 0° ♉), and it will be there on arriving at H, distant from B 102° 39′ of the equator; but as 0° ♊ is already at G, the distance from G to H, equal to 70° 23′ of the equator, is the amount of the prorogation between 0° ♉ and 0° ♊, when 0° ♉ is on the 7th house. The fourth example places 0° ♉ at I, three temporal hours past the meridian; 0° ♊ therefore falls on the point K, at the distance of 13 equatorial degrees before the meridian or mid-heaven, and will be three temporal hours past the meridian (the position of 0° ♉) on arriving at L, distant 51 equatorial degrees from the mid-heaven: the whole distance from K (the first position of 0° ♊) to L, its second position, equal to 64 degrees of the equator, is therefore the prorogation between 0° ♉ and 0° ♊, when 0° ♉ is past the meridian at the distance of three temporal hours. Ptolemy has also instanced two other positions for 0° ♉; viz. at two temporal hours past the meridian, and at two temporal hours before the occidental angle; or, in other words, on the cusp of the 9th house, and on that of the 8th. Now, if 0° ♉ be on the cusp of the 9th house, it must be at M, and 0° ♊ will be at N, distant 62 equatorial degrees from Q, which is also on the cusp of the 9th. If 0° ♉ be on the cusp of the 8th, it must be at O, and 0° ♊ will be at P, distant 66 equatorial degrees from R, which is also on the cusp of the 8th: these two several numbers of degrees will be the respective prorogations between 0° ♉ and 0° ♊, when 0° ♉ is placed on the 9th and 8th houses.[Pg 163]

Ptolemy's "Exemplification" has been followed thus minutely in order to show how perfectly Mr. Ranger's invention is adapted to assist (if not to supersede) arithmetical calculation; for, after the Planisphere has once been accurately laid down, a line drawn parallel to the equator, from the significator to the promittor, or to the promittor's pole of position, and measured by degrees of the equator, will accomplish the whole operation of ascertaining the amount of prorogation.

Fig. 2 is the Equator extended, *in plano*, on a scale proportionate to the planispheres in Figs. 1 and 3: it is divided into 360 degrees, and into equal time, as measured by the 24 hours of the earth's daily rotation on its axis, and by smaller portions of four minutes each, corresponding with degrees of the equator.

Fig. 3 is the Planisphere set for the latitude of Southern Britain, 51° 30′ N., where the longest day is 16 h. 30 m., the semi-diurnal arc of 0° ♊ being consequently 7 h. 52 m., or 118° of the equator, and its diurnal temporal hour equal to one hour and nearly nineteen minutes of equatorial time, or to 19° 40′ of the equator. In applying Ptolemy's examples, given in Chapter XV, Book 3, to this latitude, it will follow that, when 0° ♉ may be on the ascendant, 0° ♊ will be at A, and will subsequently arrive at the ascendant at C, after the passage of 29° 43′ of the equator. When 0° ♉ may be on the mid-heaven at D, 0° ♊ will be at E, and will arrive at B, on the mid-heaven, after the passage of 57° 44′ of the equator, as in Fig. 1. When 0° ♉ may be on the 7th house, at F, 0° ♊ will be at G, and will come to the 7th house, at H, after the passage of 85° 45′ of the equator. If 0° ♉ be three temporal hours past the meridian, at I, 0° ♊ would be at K, again 13 equatorial degrees before the meridian, as in Fig. 1, and will be three temporal hours past the meridian, a position similar to that assumed for 0° ♉, on arriving at L, distant from the mid-heaven 59 equatorial degrees; thus making the whole distance, from K to L, 17 equatorial degrees. If 0° ♉ be on the 9th house, at M, 0° ♊ will be at N, distant from Q (also on the 9th house) about 67 equatorial degrees. If 0°

♉ be on the 8th house, at O, 0° ♊ will be at P, distant from R (also on the 8th house) about 76 equatorial degrees.

By taking the trouble to calculate the distances between the several positions given by Ptolemy, the Reader may satisfy himself of the sufficiency of this Planisphere for the purpose for which it was first projected; viz. for the more expeditious measurement of the arcs of direction. The Tables of Ascensions, extracted from the Almagest, in p. 152, will show that the arcs, as measured in Figs. 1 and 2 of the plate, exactly tally with the amounts of distance obtained by calculating arithmetically, according to the respective latitudes, as quoted in the Tables.

The slight view which has been here given of the Zodiacal Planisphere invented by Mr. Ranger, must not be considered as pretending to offer a [Pg 164]complete idea of its powers: they are so manifold and various, that another volume would be required to detail them fully; and it has now been used only in order to give a better illustration of Ptolemy's examples of the spaces of prorogation than mere words can do. To persons conversant with the mathematical part of astronomy, the facility with which a complete representation of zodiacal latitude, declination, the poles of position, crepusculine circles, and other phenomena, may be made by this Planisphere, will be sufficiently obvious from the accompanying Figures.

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Fig. 1.

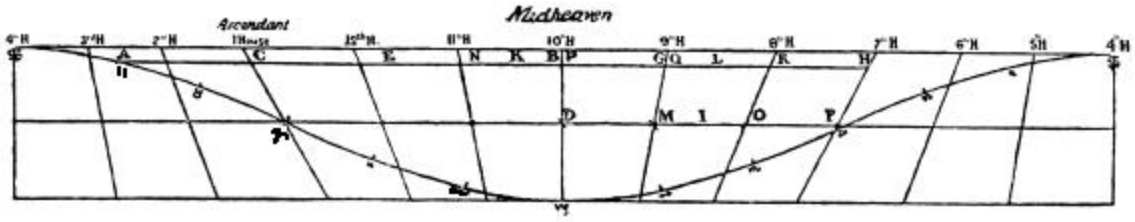


Fig. 2.

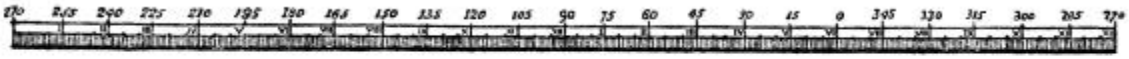
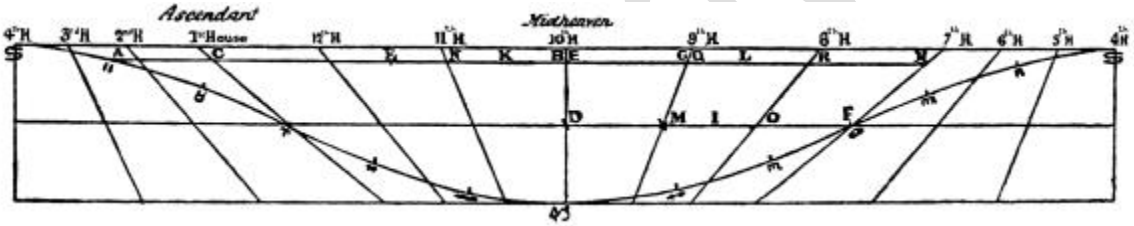


Fig. 3.



Footnotes:

[1]Sir Isaac Newton has the following remarks in regard to the origin of Astrology:—"After the study of Astronomy was set on foot for the use of navigation, and the Ægyptians, by the heliacal risings and settings of the stars, had determined the length of the solar year of 365 days, and by other observations had fixed the solstices, and formed the fixed stars into asterisms, all which was done in the reigns of Ammon, Sesac, Orus, and Memnon," (about 1000 years before Christ), "it may be presumed that they continued to observe the motions of the planets, for they called them after the names of their gods; and Nechepsos, or Nicepsos, King of Sais," (772 B.C.), "by the assistance of Petosiris, a priest of Ægypt, invented astrology, grounding it upon the aspects of the planets, and the qualities of the men and women to whom they were dedicated;† and in the

beginning of the reign of Nabonassar, King of Babylon, about which time the Æthiopians, under Sabacon, invaded Ægypt" (751 B.C.), "those Ægyptians who fled from him to Babylon, carried thither the Ægyptian year of 365 days, and the study of astronomy and astrology, and founded the æra of Nabonassar, dating it from the first year of that king's reign" (747 B.C.), "and beginning the year on the same day with the Ægyptians for the sake of their calculations. So Diodorus: '*they say that the Chaldæan in Babylon, being colonies of the Ægyptians, became famous for astrology, having learned it from the priests of Ægypt.*'"—Newton's Chronology, pp. 251, 252.

Again, in p. 327: "The practice of observing the stars began in Ægypt in the days of Ammon, as above, and was propagated from thence, in the reign of his son Sesac, into Afric, Europe, and Asia, by conquest; and then Atlas formed the sphere of the Libyans" (956 B.C.), "and Chiron that of the Greeks (939 B.C.); and the Chaldæans also made a sphere of their own. But astrology was invented in Ægypt by Nichepsos, or Necepsos, one of the Kings of the Lower Ægypt, and Petosiris his priest, a little before the days of Sabacon, and propagated thence into Chaldæa, where Zoroaster, the legislator of the Magi, met with it: so Paulinus;

'*Quique magos docuit mysteria vana Necepsos.*'"

The arcana of Astrology constituted a main feature in the doctrines of the Persian Magi; and it further appears, by Newton's Chronology, p. 347, that Zoroaster (although the æra of his life has been erroneously assigned to various remoter periods) lived in the reign of Darius Hystaspis, about 520 B.C., and assisted Hystaspes, the father of Darius, in reforming the Magi, of whom the said Hystaspes was Master. Newton adds, p. 352, that "about the same time with Hystaspes and Zoroaster, lived also Ostanes, another eminent Magus: Pliny places him under Darius Hystaspis, and Suidas makes him the follower of Zoroaster: he came into Greece with Xerxes about 480 B.C., and seems to be the Otanes of Herodotus. In his book, called the Octateuchus, he taught the same doctrine of the Deity as Zoroaster."

Having quoted thus far from Newton, it seems proper to subjoin the following extract from the "Ancient Universal History:"—"In the reign of Gushtasp" (the oriental name of Darius Hystaspis), "King of Persia, flourished a celebrated astrologer, whose name was Gjamasp, surnamed Al Hakim, or the wise. The most credible writers say that he was the brother of King Gushtasp, and his confidant and chief minister. He is said to have predicted the coming of the Messiah; and some treatises under his name are yet current in the East. Dr. Thomas Hyde, in speaking of this

philosopher, cites a passage from a very ancient author, having before told us that this author asserted there had been among the Persians ten doctors of such consummate wisdom as the whole world could not boast the like. He then gives the author's words: 'Of these, the sixth was Gjamasp, an astrologer, who was counsellor to Hystaspis. He is the author of a book intitled *Judicia Gjamaspis*, in which is contained his judgment on the planetary conjunctions. And therein he gave notice that Jesus should appear; that Mohammed should be born; that the Magian religion should be abolished, etc.; nor did any astrologer ever come up to him.' (*E. lib. Mucj. apud Hyde.*) Of this book there is an Arabic version, the title of which runs thus: The Book of the Philosopher Gjamasp, containing Judgments on the Grand Conjunctions of the Planets, and on the Events produced by them. This version was made by Lali; the title he gave it in Arabic was Al Keranai, and he published it A.D. 1280. In the preface of his version it is said that, after the times of Zoroaster, or Zerdusht, reigned Gushtasp, the son of Lohrasp,†† a very powerful prince; and that in his reign flourished in the city of Balch, on the borders of Chorassan, a most excellent philosopher, whose name was Gjamasp, author of this book; wherein is contained an account of all the great conjunctions of the planets which had happened before his time, and which were to happen in succeeding ages; and wherein the appearances of new religions and the rise of new monarchies were exactly set down. This author, throughout his whole piece, styles Zerdusht, or Zoroaster, our Prophet. (D'Herbelot, Bibl. Orient. Art. Gjamasp.) The notion of predicting the rise and progress of religions from the grand conjunctions of the planets, has been likewise propagated in our western parts: Cardan was a bold assertor of this doctrine. The modern Persians are still great votaries of astrology, and although they distinguish between it and astronomy, they have but one word to express astronomer and astrologer; viz. *manegjim*, which is exactly equivalent to the Greek word αςτρολογος. Of all the provinces of Persia, Chorassan is the most famous for producing great men in that art; and in Chorassan there is a little town called Genabed, and in that town a certain family which, for 6 or 700 years past, has produced the most famous astrologers in Persia; and the king's astrologer is always either a native of Genabed, or one brought up there. Sir John Chardin affirms that the appointments in his time for these sages amounted to six millions of French livres per annum.—Albumazar of Balch scholar of Alkendi, a Jew, who was professor of judicial astrology at Bagdad, in the Caliphate of Almamoum††† became wonderfully famous. He wrote expressly from the Persian astrologers, and it may be from the works of Gjamasp, since he also reports a prediction of the coming of Christ in the following words: viz. 'In the sphere of

Persia, saith Aben Ezra, there ariseth upon the face of the sign Virgo a beautiful maiden, she holding two ears of corn in her hand, and a child in her arm: she feedeth him, and giveth him suck, &c. This maiden,' saith Albumazar, 'we call Adrenedefa, the pure Virgin. She bringeth up a child in a place which is called Abrie (the Hebrew land), and the child's name is called Eisi (Jesus).' This made Albertus Magnus believe that our Saviour, Christ, was born in Virgo; and therefore Cardinal Alliac, erecting our Lord's nativity by his description, casteth this sign into the horoscope. But the meaning of Albumazar was, saith Friar Bacon, that the said virgin was born, the Sun being in that sign, and so it is noted in the calendar; and that she was to bring up her son in the Hebrew land. (Mr. John Gregory's Notes on various Passages of Scripture.)"—*Ancient Universal History, vol. 5, pp. 415 to 419.*

† It is maintained by astrologers, that the planets, *having been observed* to produce certain effects, were *consequently* dedicated to the several personages whose names they respectively bear.

†† This caliph reigned in the earlier part of the 9th century, and caused Ptolemy's Great Construction to be translated into Arabic, as hereafter mentioned.

††† This seems to be a mistake of the Arabian author, for Gushtasp was identical with Darius Hystaspis, and Lohrasp (otherwise Cyaxares) was father of Darius the Mede, who was overcome by Cyrus, 536 B.C.—See Newton.

[2]To this view of the case, the following remarks seem not inapplicable: they are taken from a periodical work of deserved reputation:—

"The study of astrology itself, as professing to discover, by celestial phenomena, future mutations in the elements and terrestrial bodies, ought, perhaps, not to be despised.† The theory of the tides, for example, is altogether an astrological doctrine, and, long before the days of Sir Isaac Newton, was as well understood as it is at this moment. The correspondence alleged by the ancient physicians to exist between the positions of the Moon and the stages of various diseases, is so far from being rejected by the modern faculty, that it has been openly maintained."†† The writer then recounts sundry incidents, asserted by the astrologers to be dependent on the Moon, and he adds these words: "The fact of these allegations might be so easily ascertained, that it is surprising they should still be pronounced incredible, and *denied* rather than *contradicted*."

† "Sir Christopher Heydon's Defence of Astrology, p. 2, edit. 1603."

†† "Dr. Mead on the Influence of the Sun and Moon upon Human Bodies. See also Edinb. Rev. vol. 12, p. 36—Balfour on Sol-Lunar Influence." *Blackwood's Magazine for Dec., 1821, Part 2, No. 59.*

[3]In the 51st No. of the Quarterly Review, Art. "*Astrology and Alchymy*," the following observations are made:—

"Certainly, if man may ever found his glory on the achievements of his wisdom, he may reasonably exult in the discoveries of astronomy; but the knowledge which avails us has been created solely by the absurdities which it has extirpated. Delusion became the basis of truth. Horoscopes and nativities have taught us to place the planet in its sure and silent path; and the acquirements which, of all others, now testify the might of the human intellect, derived their origin from weakness and credulity" (p. 181). Again; "Astrology, like alchymy, derives no protection from sober reason; yet, with all its vanity and idleness, it was not a corrupting weakness. Tokens, predictions, prognostics, possess a psychological reality. All events are but the consummation of preceding causes, clearly felt, but not distinctly apprehended. When the strain is sounded, the most untutored listener can tell that it will end with the key-note, though he cannot explain why each successive bar must at last lead to the concluding chord. The omen embodies the presentiment, and receives its consistency from our hopes or fears." (p. 208).

It may, perhaps, be difficult to assent to all of the propositions involved in these extracts; but there are among them some which are clearly unquestionable.

[4]This edition was printed in double columns, one containing Proclus's Greek Paraphrase, the other the Latin translation of Leo Allatius; and William Lilly (no light authority in these matters) thus wrote of it in the year 1647: "Indeed Ptolemy hath been printed in folio, in quarto, in octavo, in sixteens: that lately printed at Leyden" (where cthe Elzevirs were established) "I conceive to be most exact; it was performed by Allatius." To the said edition is prefixed an anonymous address to the reader, in Latin, and to the following effect:—

"I have reckoned it part of my duty to give you, benevolent reader, some short information as to the publication of this little work, which, having hitherto existed only in Greek,† is now, in its Latin dress, accessible to the curiosity of all persons. This Paraphrase of Proclus on the Tetrabiblos of Ptolemy was translated a few years ago by Leo Allatius, a Greek by birth, eminently skilled in the learning of his own nation, as well as in Latin literature, and already celebrated for other

writings in both languages. He lives, I have understood, in Rome, in the family of Cardinal Biscia, and holds some office in the Vatican Library. He undertook his present work, however, for his own private gratification, and that of certain friends; but when writings compiled with this view have once quitted their author's hands, it will often happen that they have also, at the same time, escaped his control. So this offspring of Allatius, having emerged from Rome, arrived at Venice, from whence it was forwarded to me by a certain great personage of illustrious rank, in order that I might cause it to be printed. The names of Ptolemy and Proclus, so celebrated among mathematicians and philosophers, besides the subject of the work itself, seemed to me a sufficient warrant for committing it to the press. Whereupon I delayed not to avail myself of the advantages I possessed in having access to our excellent and most accurate typographers, the Elzevirs, and I earnestly solicited them to publish it: they, in their love for the commonwealth of letters, took upon themselves the charge of printing it in the form you see. You will learn from it, inquisitive Reader, how much power the stars have over the atmosphere and all sublunary things: for the stars, and those brighter bodies of heaven, must not be imagined to be idle. The whole doctrine of the stars is not, however, here treated of, but only that distinct part of it which the Greeks call judicial and prognostic, and which, while confined within certain limits is as entertaining as it is useful, and is partly considered to be agreeable to nature. But should it pretend to subject to the skies such things as do not depend thereupon, and should it invite us to foresee by the stars such things as are above the weakness of our apprehension, it will assuredly deserve to be reprehended as a vain and empty art, which has been demonstrated in many learned books by the great Picus of Mirandola. The Chaldæans, Genethliacs, and Planetarians, have been always held in disrepute, because they professed to know not only more than they actually did know, but also more than is allowed to man to know. Even Ptolemy, while he employs himself in his present work upon the Doctrine of Nativities, is scarcely free from the charge of superstition and vanity: perhaps, in a Pagan, this may be forgiven; but it is hardly to be tolerated, that persons professing Christianity should be led away by such an empty study, in which there is no solid utility, and the whole pleasure of which is puerile. Finally, I warn you that some persons doubt whether this was really produced by Ptolemy††: nevertheless, it has certainly appeared to Porphyry and Proclus (who were doubtless great philosophers, although hostile to the Christian faith) to be worthy of receiving elucidation by their Commentaries upon it.††† Peruse it, however, friendly reader, with caution, having first shaken off the weakness of credulity, for the sinew of wisdom is not to believe rashly. Farewell."

In addition to the remarks made in the foregoing address regarding Leo Allatius, it may be observed that he was appointed Keeper of the Vatican Library by Pope Alexander VII, with whom he was in high favour. It is said of him, that he had a pen with which he had written Greek for forty years, and that he shed tears on losing it. Another story of him states, that the Pope had often urged him to take holy orders, that he might be advanced in the church, and one day asked him why he had not done so: "Because," said Allatius, "I would be free to marry."—"Why, then, do you not marry?"—"Because I would be free to take orders."—*Chalmer's Biographical Dictionary.*

† This assertion is applicable only to Proclus's Paraphrase. There were several prior translations of the original Tetrabiblos in Latin and Arabic; and it appears by an extract from the Bibliotheca Græca of Fabricius (which will be found in a subsequent page), that a Latin version, done from the Arabic, was printed at Venice as early as the year 1493.

†† The reader is again referred to the extract from Fabricius (inserted in a subsequent page), containing that learned person's account of this book among the other works of Ptolemy.

††† Their Commentaries were printed at Basle, in 1559.

[5]This translation from the Perugio press has been serviceable in presenting certain various readings; but it does not seem to possess any other peculiar merit. It professes to be a translation from the original text of Ptolemy; and so likewise does the translation printed at Basle, as above quoted.

[6]It appears by the printed works of this author, that he was named Didacus Placidus de Titis. He was a native of Bologna, by profession a monk, and was styled Mathematician to the Archduke Leopold William of Austria. He wrote in the earlier part of the 17th century, and his work, now cited, is considered to contain the most successful application of Ptolemy's astrological rules to practice. The original is extremely scarce; but a new English edition, by Cooper, may be had of the Publishers of this work.

[7]Printed at Basle, 1541.

[8]Chalmer's Biographical Dictionary.

[9]In France, about the beginning of the 16th century, Oronce Finé, the Royal Reader, attempted, under the patronage of Francis I, to produce an astronomical clock, in which everything moved according to the principles of Ptolemy. It was kept, about fifty years ago, in the monastery of St.

Geneviéve, at Paris. In Lilly's Catalogue of Astrological Authors, Orontius Finæus is mentioned as the writer of a work on the twelve houses of heaven, printed in Paris, 1553.

[10]*Spectacle de la Nature.*

[11]The objection which has been urged against astrology, that the signs are continually moving from their positions, cannot invalidate this conclusion. That objection has, in fact, no real existence; for Ptolemy seems to have been aware of this motion of the signs, and has fully provided for it in the 25th Chapter of the 1st Book of the Tetrabiblos. From that chapter it is clear that the respective influences he ascribes to the twelve signs (or divisions of the zodiac) were considered by him as appurtenant to the *places* they occupied, and not to the *stars* of which they were composed. He has expressly and repeatedly declared that the point of the vernal equinox is ever the beginning of the zodiac, and that the 30 degrees following it ever retain the same virtue as that which he has in this work attributed to Aries, although the stars forming Aries may have quitted those degrees: the next 30 degrees are still be accounted as Taurus, and so of the rest. There is abundant proof throughout the Tetrabiblos, that Ptolemy considered the virtues of the *constellations* of the zodiac distinctly from those of the *spaces* they occupied.

[12]The French say 813, but 827 is the date given by English chronologists.

[13]This scientific man was a Mathurine Friar, and a professor in the University of Paris: he died in 1256. It is pointed out in the Edinburgh Review, No. 68, that he was a native of Yorkshire, and his real name John Holywood, euphonized, in Paris, into Sacrobosco.

[14]Chalmers.—The Tetrabiblos was among these works.

[15]To such readers as may be curious to know in what manner this book was promulgated in Europe, after the revival of letters, the following extract from the Bibliotheca Græca of Fabricius will furnish information:—

"Lib. IV. Cap. XIV. §4. Τετραβιβλος, Συνταξις Μαθηματικη *Quadripartitum, sive quatuor libri de apotelesmatibus et judiciis astrorum, ad Syrum* (h). Græce primum editi a *Joachimo Camerario*, cum versione suâ duorum priorum librorum, et præcipuorum e reliquis locorum. Norimb. 1535, 4to.—Hinc cum versione *Phil.* Melancthonis, qui in præfat, ad Erasmum Ebnerum Senatorem Norimbergensem testatur se editionem Camerarii multis mendis purgasse, tum numeros in locis apheticis tam Græci quam Latini textus emendasse. Basil, 1553; 8vo.—

Latine pridem verterat *Ægidius Tebaldinus*, sive latino-barbaré ex Hispanica versione, Alfonsi Castellæ Regis jussu, ex Arabico (i) confectâ. Vertit et *Antonius Gogava*, Lovan. 1548, 4to; Patavii, 1658, 12mo; Pragæ, 1610, 12mo. Commentario illustravit *Hieron. Cardanus* prioribus duobus libris Camerarii, posterioribus Gogavæ versione servatâ, Basil, 1554, fol.; 1579, fol.; Lugd. 1555, 8vo, et in Cardani opp.—*Georgii Vallæ* commentarius, anno 1502 editus, nihil aliud est, quam Latina versio scholiorum Græcorum, sive exegeseos jejunæ *Demophili* in tetrabiblon, quæ cum *Porphyrii* sive *Antiochi* isagoge, Græce et Latine, addita *Hieron Wolfii* versione, lucem vidit Basil. 1559, his scholiis Dorotheus allegatur, p. 48, 110, et 139; Cleopatra, p. 88; Porphyrius Philosophus, p. 169. Meminit et auctor Petosiridis ac Necepso, p. 112:—λεγει δε παλαιον τον Νεχεψω (ita leg, pro χεψω ut p. 112) και Πετοσιριν, ουτοι χαρ πρωτοι το δι αςρολογιας εχηπλωσαν προγνωςικον† Paraphrasin tetrabibli a *Proclo* concinnatam Græce edidit Melancthon, Basil. 1554, 8vo. Græce et Latine cum versione suâ *Leo Allatius*, Lugd. Batav. 1654,†† 8vo. Locum Ptolemæi e codice Græco MS. in collegio Corporis Christi Oxon, feliciter restituit Seldenus, p. 35 ad Marmora Arundeliana. Haly Heben Rodoan Arabis commentarium laudat Cardanus, cum Demophilo Latine editum."

"(h) Schol. Græc.—Προσφωνει τω Συρω ο Πτολεμαιος το βιβλιον, προς ον και τας αλλας αντου πασας πραγματειας προσφωνησεν. Λεγουσι δε τινες ως πεπλαςαι αυτο το του Συρω ονομα. Αλλοι δε οτι ον πεπλαςαι, αλλ' ιατρος ην ουτος αχθεις και δια τουτων των μαθηματων."

"(i) Selden. Uxor Hebr. p. 342. Cæterum de Alphonsi Regis curâ in promovenda Arabica Quadripartiti versione, vide, si placet, Nic: Antonium in Bibl. veteri Hispana, t. 2, p. 55, vel Acta Erud. A. 1697, p. 302. Latino versio ex Arabico facta lucem vidit Venet, 1493, fol. Viderit porro Gassendus qui in Philosophia Epicuri, ubi contra Astrologos disputat. t. 2, p. 501, contendit tetrabiblon indignum esse Ptolemæi genio et subdititum. Equidem Jo. Pico

judice, l. 1, contra Astrologos, p. 285, Ptolemæus *malorum* sive Apotelesmaticorum est *optimus*."

† "Nechepsos and Petosiris are anciently spoken of, for they first explained prognostication by Astrology."

†† This was perhaps a reprint of the edition of 1635, from which the present translation has been made; unless there may have been an error of the press in stating 1654 instead of 1635, which seems probable, as the edition of 1635 is unnoticed by Fabricius.

[16]It will be seen by the preceding note, that Proclus's Paraphrase of the Tetrabiblos should properly be considered as superior to the other readings of that book; since it appears, on the authority of Fabricius, that Melancthon, after having been at the pains of correcting and republishing, in 1553 (with his own emendations), the edition of Camerarius, containing the reputed original text, still deemed it advisible, in the following year, to edit Proclus's Paraphrase. This Paraphrase must, therefore, necessarily have had claims to his attention not found in the text he had previously edited.†

† "Ptolemy addresses the book to Syrus, to whom he has also addressed all his other treatises. Some say that this name of Syrus was feigned; others, that it was not feigned, but that he was a physician, and educated in these sciences."

[17]Chalmer's Biographical Dictionary.

[18]It will, of course, be understood that this Commentary is distinct from his Paraphrase, now translated.

[19]The Almagest, or *Magna Constructio*.

[20]The following extract from an old geographical work, framed on the rules of Ptolemy, explains the system on which this action of the æther is made to depend:—

"Chap. 2. The world is divided into two parts, the elemental region and the æthereal. The elemental region is constantly subject to alteration, and comprises the four elements; earth, water, air and fire. The æthereal region, which philosophers call the fifth essence, encompasses, by its concavity, the elemental; its substance remains always unvaried, and consists of ten spheres; of

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which the greater one always spherically environs the next smaller, and so on in consecutive order. First, therefore, around the sphere of fire, GOD, the creator of the world, placed the sphere of the Moon, then that of Mercury, then that of Venus, then that of the Sun, and afterwards those of Mars, of Jupiter, and of Saturn. Each of these spheres, however, contains but one star: and these stars, in passing through the zodiac, always struggle against the *primum mobile*, or the motion of the tenth sphere; they are also entirely luminous. In the next place follows the firmament, which is the eighth or starry sphere, and which trembles or vibrates (*trepidat*) in two small circles at the beginning of Aries and Libra (as placed in the ninth sphere); this motion is called by astronomers the motion of the access and recess of the fixed stars." (Probably in order to account for the procession of the equinoxes.) "This is surrounded by the ninth sphere, called the chrystalline or watery heaven, because no star is discovered in it. Lastly, the *primum mobile*, styled also the tenth sphere, encompasses all the before-mentioned æthereal spheres, and is continually turned upon the poles of the world, by one revolution in twenty-four hours, from the east through the meridian to the west, again coming round to the east. At the same time, it rolls all the inferior spheres round with it, by its own force; and there is no star in it. Against this *primum mobile*, the motion of the other spheres, running from the west through the meridian to the east, contends. Whatever is beyond this, is fixed and immovable, and the professors of our orthodox faith affirm it to be the empyrean heaven which GOD inhabits with the elect."—Cosmographia of Peter Apianus (named Benewitz), dedicated to the Archbishop of Salzburg, edited by Gemma Frisius, and printed at Antwerp 1574.

[21]It will be recollected that the Ptolemaic astronomy attributes motion and a regular course to those stars which we now call fixed, but which the Greeks merely termed απλανεις, *undeviating*.

[22]There seems reason to suppose that this was a favourite speculation among the ancients. In Scipio's Dream, as related by Cicero, the phantom of his illustrious grandfather is made to speak of this entire return of all the celestial bodies to some original position which they once held, as being the completion of the revolution of one great universal year: and the phantom adds, "but I must acquaint you that not one-twentieth part of that great year has been yet accomplished."

This quotation is from memory, and perhaps may not be verbally correct.

[23]In this passage the author seems to have anticipated, and exposed the absurdity of an argument now considered very forcible against astrology: viz. that "if the art were true, then any two individuals born under the same meridian, in the same latitude, and at the same moment of time,

must have one and the same destiny; although one were born a prince, and the other a mendicant." Such a monstrous conclusion is nowhere authorized by any astrological writer; it is, on the contrary, always maintained by all of them, that the worldly differences and distinctions, alluded to in the text, inevitably prevent this exact resemblance of destiny; and all that they presume to assert is, that, in their respective degrees, any two individuals, so born, will have a partial similarity in the leading features of their fate. Whether their assertion is *uniformly* borne out, I will not take upon me to determine, but it would be unfair not to subjoin the following fact:—

In the newspapers of the month of February, 1820, the death of a Mr. Samuel Hemmings is noticed: it was stated that he had been an ironmonger, and prosperous in trade; that he was born on the 4th of June, 1738, at nearly the same moment as his late Majesty, and in the same parish of St. Martin's-in-the-Fields; that he went into business for himself in October, 1760; that he married on the 8th September, 1761; and finally, after other events of his life had resembled those which happened to the late King, that he died on Saturday, the 29th January, 1820.

These coincidences are, at least, highly remarkable.

[24]The Greek word for this, γοναι, though found in the Elzevir edition from which this translation is made, does not appear in other copies; the Basle edition of 1553 says merely, η τε τιμη και το αξιωμα, "*honour and rank*," which is the sense also given in the Latin translation of Perugio, 1646, without any mention of "*offspring*."

[25]In allusion to the sympathetic powers anciently attributed to certain stones.

[26]Whalley, in translating this chapter, makes the following remark on this mention of the magnet: "However much later it was that the loadstone became known in Europe, what is mentioned of it in this chapter makes it evident that it was known in Ægypt, where Ptolemy lived, in his time."—That worthy translator forgot (if indeed he ever knew) that the loadstone's property of attracting iron was known to Thales, and commented on by Plato and Aristotle, all of whom lived some centuries, more or less, before Ptolemy. It is its polarity that was not known until the 11th or 12th century; and the French say that the earliest notice of that polarity is found in a poem of Guyot of Provence, who was at the Emperor Frederick's Court at Mentz in 1181.—See the French Encyclopædia, &c.

[27]Respecting the effect here asserted to be produced on the magnet by garlick, I have found the following mention in a book called "The Gardener's Labyrinth," printed at London in 1586. "Here also I thought not to ouerpasse the maruellous discord of the adamant-stone and garlike, which the Greeks name to be an Antipatheia or naturall contrarietie betweene them; for such is the hatred or contrarietie between these two bodies (lacking both hearing and feeling), that the adamant rather putteth away, than draweth to it, iron, if the same afore be rubbed with garlike; as Plutarchus hath noted, and, after him, Claudius Ptolemæus. Which matter, examined by divers learned, and founde the contrarie, caused them to judge, that those skilful men (especially Ptolemie) ment the same to be done with the Egyptian Garlike; which Dioscorides wrote to be small garlike, and the same sweete in taste, possessing a bewtifull head, tending unto a purple colour. There be which attribute the same to Ophioscoridon, which Antonius Microphonius Biturix, a singular learned man, and wel practised in sundry skilles, uttered this approoued secrete to a friend whom he loued."

In the same book, the "Ophioscoridon" is thus spoken of: "There is another wild garlike which the Greeks name Ophioscoridon; in English Ramsies; growing of the owne accord in the fallow fieldes."

Cornelius Agrippa (according to the English translation) has stated that the presence of the diamond also neutralizes the attractive power of the magnet. But as that great magician was somewhat inclined to quibbling, it is not impossible that by the word he uses for "diamond" (viz. *adamas*) he may mean the adamant or loadstone; which would reduce his assertion merely to this, that one magnet will counteract another.

[28]This seems to explain the origin of the old alliance between medicine and astrology, so universally preserved until almost within the last century.

[29]It will be recollected that the Ptolemaic hypothesis considers the Sun as a planetary orb, in consequence of his apparent progress through the zodiac.

[30]"Astronomers call the planets matutine, when, being oriental from the Sun, they are above the earth when he rises; and vespertine, when they set after him." Moxon's Mathematical Dictionary.

[31]Whalley here appends the following note: "To this chapter may be properly added, that a planet is said to be diurnal, when, in a diurnal nativity, above the earth; and, in a nocturnal nativity, under

the earth: but nocturnal, when, in a nocturnal nativity, above the earth; or, in a diurnal nativity, under the earth."

[32]Although all the positions mentioned in this paragraph are not applicable to Venus and Mercury, which can never rise at night, that is to say, at sunset, and although the author in the beginning of the chapter speaks only of the Moon and the three superior planets, there yet seems no reason why the orbits of Venus and Mercury should not be similarly divided by their inferior and superior conjunctions, and their greatest elongations.

The following is from Whalley: "The first station, in this chapter mentioned, is when a planet begins to be retrograde; and the second station when, from retrogradation, a planet becomes direct. They" (the planets) "begin to rise at night when in opposition to the Sun."

[33]The little Torch; now known by the name of Aldebaran.

[34]Castor.

[35]Pollux.

[36]Cor Leonis.

[37]Called by the ancients χηλαι, Chelæ, or the *claws* of Scorpio; which sign they made to consist of 60 degrees, omitting Libra. Thus Virgil in the first Georgic, line 33, &c.

Quo locus Erigonen inter, Chelasque sequentes
Panditur: ipse tibi jam brachia contrahit ardens
Scorpius, et cœli justâ plus parte reliquit.

Ovid, likewise, takes the following notice of Scorpio:—

Porrigit in spatium signorum membra duorum.

Met. 2, l. 198.

[38]Adams's Treatise on the Globes calls this star "Kalb al Akrab, or the Scorpion's heart," and adds, that "the word Antares (if it is not a corruption) has no signification." But it should be observed that Ptolemy states that this star partakes of the nature of Mars: it seems therefore not improbable that Antares may be a regular Greek word, compounded of αντι *pro* and αρης *Mars*, and signifying *Mars's deputy*, or *lieutenant*, or *one acting for Mars*.

[39]Salmon, in his "Horæ Mathematicæ, or Soul of Astrology" (printed by Dawks, 1679) divides each sign of the zodiac into six faces of five degrees each, "because that in every sign there are various stars of differing natures"; and he gives a particular description to each face, depending on its ascension or culmination. This seems an attempt to adapt Ptolemy's signification of the several stars, composing the different signs, to some general rule or mode of judgment: but it does not merit the implicit assent of astrologers. It is understood that Salmon was not the inventor of this division of the signs into faces, but that it came originally from the Arabian schools.

[40]Canis Minor.

[41]"Of the fixed stars in general," Whalley says, "Those of the greatest magnitude are the most efficacious; and those in, or near, the ecliptic, more powerful than those more remote from it. Those with north latitude and declination affect us most. Those in the zenith, influence more than others, more remote. Likewise such as are in partial conjunction with, or in the antiscions of any planets, or which rise and set, or culminate with any planet, or are beheld by any planet, have an increase of power: but of themselves the fixed stars emit no rays."

[42]This sentence shows the futility of the objection raised against astrology (and mentioned in the Preface to this translation) that the signs have changed and are changing places. It is clear from this sentence that Ptolemy ascribes to the 30 degrees after the vernal equinox, that influence which he has herein mentioned to belong to Aries; to the next 30 degrees, the influence herein said to belong to Taurus; and so of the rest of the zodiac. We should rather say that the stars have changed places, than that the parts of heaven, in which they were once situated, have done so. Ptolemy himself seems to have foreseen this groundless objection of the moderns, and has written, in the 25th chapter of this book, what ought completely to have prevented it. It has certainly been one of the misfortunes of astrology to be attacked by people entirely ignorant of its principles.

[43]In other words, the Sun then begins to diminish his declination, which, at the first points of the said signs, is at its greatest amount.

[44]Whalley, in his note upon this chapter, seems to have been surprised that no mention is made here by Ptolemy of the *conjunction*; but he overlooked the fact that the chapter treats only of parts of the zodiac configurated *with each other*; and that it was not possible for Ptolemy to conceive how any part could be configurated *with itself*. It is, therefore, by no means wonderful that the

conjunction is not inserted here along with the rest of the aspects; although it is frequently adverted to in subsequent chapters, and its efficacy particularly described.

[45]From the tenor of this chapter it was formerly doubted whether the author intended to admit in his theory only zodiacal aspects, and to reject those which are called mundane; but Placidus has referred to the 4th Chapter of the 8th Book of the Almagest (which will be found in the Appendix to this translation) to prove that Ptolemy distinctly taught two kinds of aspect; one in the zodiac and one in the world. Whalley quotes the opinion of Placidus, which he says is farther confirmed by the 12th Chapter of the 3rd Book of this very treatise, where it is stated that the ascendant and the eleventh house are in sextile to each other; the ascendant and the mid-heaven in quartile; the ascendant and the ninth house in trine; and the ascendant and the occidental angle in opposition; all which certainly seems to be applicable to mundane aspects in particular.

[46]Whalley has a very lengthy note upon this and the preceding chapter, to show that Ptolemy here speaks of zodiacal parallels, or parallels of declination, and to point out the necessity of observing a planet's latitude, in order to ascertain its true parallels. It is, however, to be recollected, that the parallels now alluded to are distinct from the *mundane parallels*, which are equal distances from the horizon or meridian, and are considered by Ptolemy in the 14th and 15th Chapters of the 3rd Book of this work; although not under the express name of mundane parallels.

[47]It has never been very clearly shown how the followers of Ptolemy have reconciled the new aspects (called the semiquadrate, quintile, sesquiquadrate, biquintile, &c.) with the *veto* pronounced in this chapter. Kepler is said to have invented them, and they have been universally adopted; even Placidus, who has applied Ptolemy's doctrine to practice better than any other writer, has availed himself of them,† and, if the nativities published by him are to be credited, he has fully established their importance.

Salmon, in his "Horæ Mathematicæ," before-mentioned, gives a long dissertation (from p. 403 to p. 414) on the old Ptolemaic aspects, illustrative of their foundation in nature and in mathematics; and, although his conclusions are not quite satisfactorily drawn, some of his arguments would seem appropriate, if he had but handled them more fully and expertly; particularly where he says that the aspects are derived "from the aliquot parts of a circle, wherein observe that, although the zodiac may have many more aliquot parts than these four (the sextile, quartile, trine, and opposition), yet those other aliquot parts of the circle, or 360 degrees, will not

make an aliquot division of the signs also, which in this design was sought to answer, as well in the number 12, as in the number 360." The passage in which he endeavours to show that they are authorized by their projection, also deserves attention.

All Salmon's arguments, however, in support of the old Ptolemaic aspects, militate against the new Keplerian ones; and so does the following extract from the "Astrological Discourse" of Sir Christopher Heydon: "For thus, amongst all ordinate planes that may be inscribed, there are two whose sides, joined together, have pre-eminence to take up a semicircle, but only the hexagon, quadrate, and equilateral triangle, answering to the sextile, quartile, and trine irradiated. The subtense, therefore, of a sextile aspect consisteth of two signs, which, joined to the subtense of a trine, composed of four, being regular and equilateral, take up six signs, which is a complete semicircle. In like manner, the sides of a quadrate inscribed, subtending three signs, twice reckoned, do occupy likewise the mediety of a circle. And what those figures are before said to perform" (that is, to take up a semicircle) "either doubled or joined together, may also be truly ascribed unto the opposite aspect by itself; for that the diametral line, which passeth from the place of conjunction to the opposite point, divideth a circle into two equal parts: the like whereof cannot be found in any other inscripts; for example, the *side of a regular pentagon*" (the quintile) "*subtendeth 72 degrees, of an octagon*" (the semiquadrate) "*but 45; the remainders of which arcs, viz. 108 and 135 degrees, are not subtended by the sides of any ordinate figure*."

† Except the semiquadrate, which he has not at all noticed.

[48]Saturn being also malefic in his nature.

[49]The planets, having two houses, are said to be more powerful in one by day and in the other by night: thus,

Saturn's	day house is	Aquarius,	his night house	Capricorn
Jupiter's		Sagittarius		Pisces
Mars's		Aries		Scorpio
Venus's		Taurus		Libra
Mercury's		Gemini		Virgo

The above is from Whalley; but the same disposition is to be found in all modern astrological writers.

[50]The “lunar condition” here spoken of refers to the position of Aries (Mars’s house) in the lunar semicircle.

[51]Capricorn being in the solar semicircle.

[52]The reason for making Saturn diurnal lord of this triplicity may be found in Chap. vii.

[53]This familiarity seems to arise from the sextile aspect between Aquarius, the diurnal house of Saturn, and Sagittarius, the diurnal house of Jupiter.

[54]In reference to the terms of the planets, Placidus has these words (according to Cooper’s translation): “The dignity of the planets in the signs and their parts, which are called the bounds and terminations” (*quasi*, terms), “have a real and natural foundation; to wit, the powerful aspect or proportional influxes to the movable points in which the stars begin to produce the primary qualities. So that, according to those things we have explained in the philosophy of the heavens, these are found to agree so well with the Ægyptian boundaries” (terms), “that they are highly deserving of admiration.”

[55]This total is the 360 degrees of the zodiac, requiring to be divided according to correspondent portions of the equator; by which all time is reckoned.

[56]The degrees here mentioned are degrees of the equator.

[57]See, in the Appendix, an extract from these tables; the whole of which are to be found in the Almagest.

[58]The cause of this disposition is that Cancer, the house of the Moon, partakes of moisture, and counteracts Mars’s dryness; while Leo, the Sun’s house, is hot, and counteracts Saturn’s cold.—Vide Chap. iv, and conclusion of Chap. vii of this book.

It may further be observed, that Jupiter’s right, by triplicity, to the first degrees in Leo, is of course surrendered to Saturn, on the principle that the malefics have greater potency in the houses of the luminaries.

[59]*Vide* Chapters xii and xiv of this Book.

[60]*Vide* Chapter xx. It of course follows that Saturn is in his proper face when he is five signs, or in quintile, after the Sun or before the Moon; that Jupiter is so when in trine; Mars when in quartile;

Venus when in sextile; and Mercury when only one sign (or in modern phrase, in semi-sextile), after the Sun or before the Moon.

[61]This has been understood to mean, when the planets or luminaries are within each other's orbs; Saturn's orb being 10 degrees, Jupiter's 12, Mars's 7 degrees 30 minutes, the Sun's 17 degrees, Venus's 8, Mercury's 7 degrees 30 minutes, and the Moon's 12 degrees 30 minutes.

[62]Astrologers generally agree, that the inferior planets always apply to the superior, but the superior never to the inferior, except when the inferior be retrograde. In the present instance it seems most probable that the author means the planet which is more occidental, by "the planet which precedes." He often uses "precedent" as equivalent to "occidental" in regard to the daily revolution of the heavens: and thus a planet in the first degree of Aries would precede, and be more occidental than one in the sixth degree of Aries, to which latter it would, by the regular planetary motion, be applying.

[63]On this, Whalley says that "the less the difference of latitude of the planets in conjunction, the more powerful will be the influence: for if two planets in conjunction have each considerable latitude of different denomination, the influence of such conjunction will be much lessened."

[64]Τουτ εσι επι το κεντρον της γης. The precise meaning of the word κεντρον is "centre," rather than "angle"; but Ptolemy uses it throughout this work, in speaking of the four angles of heaven, and I conceive he uses it here to signify an angle at, or on, the earth. The following definition of an aspect, by Kepler, strengthens my opinion: "An aspect is an angle formed on the earth, by the luminous rays of two planets; efficacious in stimulating sublunary nature."

[65]Placidus (Cooper's translation) says that "the three superiors are supposed to be stronger, if they are found to be matutine, or eastern, from the Sun; the three inferiors, vespertine, or western; for then they have a greater degree of light, in which consists their virtual influence, and then they are called oriental; but occidental if otherwise. Every one knows how largely, yet to no purpose, authors have treated of the orientality of the planets."

Moxon's Mathematical Dictionary has the following words on the same subject: "Now the three superior planets are strongest, being oriental and matutine; but the three inferior when they are occidental and vespertine. The reason is, because the first in the first case, but the last in the second, do then descend to the lowest part of their orbit, are increased in light, and approaching

nearer the earth; and so on the contrary, the inferiors matutine, the superiors vespertine are weakened."

[66]In a note on the 6th Chapter of this Book, Whalley says that, "according to Ptolemy, such as are between the ascendant and mid-heaven obtain the first place of strength, and are said to be in their oriental orientality: but, between the western horizon and the lower heaven, in their occidental orientality, which is the second place of strength: between the lower heaven and the ascendant, in their oriental occidentality, the first degree of weakness; and between the mid-heaven and western horizon, in their occidental occidentality, the weakest place of all." This is all very pretty jargon, but certainly NOT "according to Ptolemy," who distinctly says, on the contrary, that if a planet "is on the actual horizon, or succedent to the horizon, it is also *powerful, and particularly* if in the eastern quarter." The last member of this sentence, as well as the conclusion of this 27th Chapter, shows that Ptolemy did not consider a situation between the mid-heaven and western horizon to be "the weakest place of all."

[67]*Vide* Chap. iii, Book I, pp. 13-14.

[68]"Under the Bears," in the Greek.

[69]Or, perhaps, Bastarnia, a part of the ancient European Sarmatia.

[70]This should probably be understood to mean in a mundane point of view, agreeably to Chaps. VI and XV, Book I. For when Aries is on the ascendant, it is, of course, oriental and masculine; and Sagittarius must consequently then be in the eighth house, occidental, and therefore feminine.

[71]The customs of nations have, in some degree, altered since Ptolemy made this severe charge against us and our brethren in the north and west of Europe. The following passage also occurs in this part of the original text:—Προς δε τας συνουσιας των αρσενικων ανακινουμενοι και ζηλουντες, και μητε αισχρον μητε αναλδρον τουτο νομιζοντες. δια τουτο ουδε εκλυονται, οτι ουδε ως πασχοντες διακεινται επι τοντω, αλλα φυλαττουσι τας ψυχας ανδρειους.

[72]The Greek is as follows: και τα μορια αυτων τα γεννητικα ανατιθεασι τοις θεοις· διοτι ο σχηματισμος των ειρημενων αςερων φυσει σπερματικος εσιν· Follies, similar in their kind to these, are still practised by the Faquirs of Hindostan, and by other religious sects in Asia.

[73]Φανερως ποιουμενοι τας προς τας γυναικας συνουσιας·

[74]The author gives a singular reason for this incest: μισουσι δε τας (συνουσιας) προς τους αρσενας. δια τουτο και οι πλειοι αυτων εκ των μητερων τεκνοποιουσι·

[75]The epithet is remarkable, not only as being, in the opinion of a Gentile, merited by the Jews, among other nations, but also at a period scarcely exceeding a century after their most heinous crime had been committed, expressly under the cloak of religion. It seems, however, that the Jews were charged with atheism by other writers also, and on account of their neglect of the false gods of the heathens; viz. "*falsorium deorum neglectus*: quam candem causam etiam Judæis maledicendi Tacitus habuit, et Plinius Major, cui Judæi dicuntur *gens contumeliâ numinum insignis*." See Clark's Notes on Grotius de Verit. Relig. Christ. Lib. 2, §2.

[76]Other editions say "Saturn."

[77]It is usually understood that the male deity, coupled by the Phrygians with Cybele, "the mother of the Gods," was called by them Atys; and that Adonis was the name used by the Phœnicians in addressing the associate of Venus. It has been said that these divinities were identical with the Isis and Osiris of the Ægyptians.

[78]The name of Africa was, in Ptolemy's time, limited to those parts of the coast on the Mediterranean which contained the ancient Utica, and in which Tunis now stands. Josephus says the name is derived from Afer (one of the posterity of Abraham by Cethurah), who is stated to have led an army into Libya, and to have established himself in the country. This Afer is, of course, the same with Epher, mentioned in the fourth verse of the 25th chapter of Genesis, as a son of Midian, one of the sons of Abraham by his concubine Keturah.

[79]It does not appear why this practice should have been remarked as a national peculiarity, unless in distinction from the custom of burning the dead among the Greeks and Romans. Interment is recorded as having been usual among the Jews, and it is known to have been common among many ancient barbarous nations.

A conjecture may perhaps be allowed, that the author, when he wrote this passage, had in his mind the magnificent subterranean palaces, constructed for the dead, in parts of the region in question; some of which have been recently made known to the modern world by the sagacity and enterprise of the celebrated Belzoni.

[80]Τινες δε και καταφρονουσι των γεννητικων μελων.—The "contempt" here expressed by καταφρονουσι has been taken by all translators (except Whalley) to signify "mutilation."

[81]History warrants the high enconium here given to the natives of these countries. Ægypt was the acknowledged mother of the arts and sciences, and at one time the great depot of all the learning of the world: her school of astronomy (a science which our author may be supposed to have placed in the first rank), founded at Alexandria by Ptol. Philadelphus, maintained its superior reputation for a thousand years. Cyrenaica gave birth to many illustrious philosophers, and, among them, to Eratosthenes, who is said to have invented the armillary sphere. This great man measured the obliquity of the ecliptic, and, though he erroneously reckoned it at only 20½ degrees, it should be recollected that he lived 200 years before the Christian æra. He also measured a degree of the meridian, and determined the extent of the earth, by means similar to those adopted by the moderns.

[82]Whalley remarks on this passage, that the gradual progress of the fixed stars "from one sign to another, is in an especial manner to be regarded in considering the mutations, manners, customs, laws, government, and fortune of a kingdom."

[83]As shown in the Table at page 51.

[84]It does not appear that the text here warrants the conclusion which Whalley has drawn from it, viz. "that wherever eclipses are not visible, they have no influence, and therefore subterranean eclipses cannot have any." Ptolemy declares, that *all* countries in familiarity with the ecliptical place will be comprehended in the event; and, with regard to the visibility or invisibility of the eclipse, he says merely that its effects will be *principally* felt in such of the said countries as might have obtained a view of the eclipse.

[85]Temporal or solar hours are duodecimal parts of the Sun's diurnal or nocturnal arc, and are numbered by day from sunrise to sunset; by night, from sunset to sunrise.

[86]Equatorial hours are the twenty-four hours of the earth's revolution on its axis. Each of them is equal in duration to the passage of 15 degrees of the Equator; and they are numbered from noon to noon. A particular explanation of the astronomical use, both of temporal and equatorial hours, is to be found in the 9th Chapter of the second Book of the Almagest; an extract from which is given in the Appendix.

[87]The three periods of four months each, stated in this paragraph, are applicable to solar eclipses only; for lunar eclipses, these periods may be reckoned at ten days each; that number of days bearing the same proportion to a month, as four months to a year. On this point, Whalley, with his usual inaccuracy, has asserted, that "in eclipses of the Moon, two days, or thereabouts, are equal to the four months" here reckoned in eclipses of the Sun. He adds, however, what perhaps may be true, that "lunar eclipses are by no means so powerful as those of the Sun, although more so than any other lunation."

[88]That is to say, from any combinations of the Sun and Moon which may take place after the date of the eclipse, but before the close of its effect.

[89]The edition of Allatius does not contain the words here marked by inverted commas; but they are found in other editions of the text, and seem necessary to complete the sense of the passage.

[90]"When planets, in election for Lords of the eclipse, are found of equal strength and dignity, those which are direct are to be preferred before those which are retrograde; and the oriental before the occidental."—*Whalley's "Annotations."*

[91]That is to say, in the Almagest, Book VIII, Chap. IV; which chapter is given, entire, in the Appendix.

[92]"In electing fixed stars, Cardan directs to observe the angle which the eclipse follows, and that which it precedes: as, if the eclipse be between the seventh house" (or occidental angle) "and the mid-heaven, the stars which are in the seventh shall be preferred; and next, those in the mid-heaven; but, if between the mid-heaven and the ascendant, those in the mid-heaven shall have the preference; and next, those in the ascendant."—*Whalley's "Annotations."*

[93]It is perhaps unnecessary to remark, that, in speaking of ruling places, as liable to be situated in Aquila, Delphinus or Argo, Ptolemy alludes only to the places of the fixed stars in dominion: since the ecliptical place and the planets must be confined to the zodiacal signs.

[94]According to Whalley, Cardan, in reference to the nine modes of configuration, applicable to the fixed stars, says, "When a fixed star is with any planet, or in any angle, consider whether it be by any of these ways; if not, it is most weak; if it be, consider whether it be with the Sun, and not to be seen; then it is very weak. Or if it is to be seen, and is with the Sun occidental, it is indifferent.

Or if it be seen, and is not with the Sun, it is stronger; or if it be seen, and is oriental, then it is strongest."

[95]That is to say (technically speaking), by reception, or by being posited in a sign in which another planet has a certain dignity or prerogative.

[96]In conformity to the rule laid down in Chap. VI of this Book, those individuals whose nativities may thus resemble the position of the heavens at the time of an eclipse, and who are here stated to be chiefly liable to the effects of the eclipse, will be more affected by it, if it should be visible to them.

To the precepts contained in this chapter, Placidus makes the following allusion in his remarks on the nativity of Cardinal Pancirole. "Any significator whatever, together with the other stars, whilst they are moved by a converse universal motion, change the aspect alternately, and consequently the mundane rays, as it likewise happens when they acquire parallels: the rays thus acquired are of a long continuance, and denote a certain universal disposition of the things signified, either good or bad, according to the nature of the aspecting stars; as it happened to this Cardinal, who some years before his death was always sickly: and this observation is wonderful in the changes of the times and weather; for this principle Ptolemy adhered to in the Almagest, lib. VIII, cap. 4; and this doctrine he also mentions in the 2nd Book of Judgments, in the chapter on the Nature of Events."—(Cooper's Translation, p. 272.)

[97]When a comet appears out of the zodiac, a line should be drawn from one zodiacal pole to the other, through the spot where it appears; and that spot is to be considered as being in familiarity with the same countries as those parts of the zodiac which may be on the same line.—*Vide* Chap. IV of this Book, relative to the manner in which fixed stars out of the zodiac hold familiarity with certain regions and countries.

[98]The Neomenia, or new Moon, was observed as a festival with much solemnity in earlier ages and by the most ancient nations. It was celebrated by the Israelites, as well as by Pagan; and it may perhaps be gathered from the 5th and 6th verses of the 20th Chapter of the 1st Book of Samuel, that it was kept once in a year with greater ceremony than at other times: this was done, probably, at the "New Moon of the Year," as Ptolemy calls it; or, in other words, at the new Moon nearest to the vernal equinox.

[99]That is to say, at the new and full Moon taking place during the Sun's progress through each sign.

[100]The passage marked thus " " is not in the Greek, but is found in two Latin translations.

[101]According to Wing, in his "Instructions to the Ephemerides," printed in 1652, the signs, as mentioned in this chapter by Ptolemy, are to be considered in their quality as constellations, and not as spaces of the heavens. This opinion, however, seems to me to be erroneous; for Ptolemy has already devoted a chapter in the 1st Book to the detail of the influences of the several stars in the respective constellations of the zodiac; and he moreover speaks, in the present chapter, of the operation of Aries, as owing to the presence of the Equinox. This he could not have done, had he spoken of the signs as constellations instead of spaces.

[102]The temperaments here alluded to are, probably, heat and cold.

[103]"*Before*." Although I have thus Englished the word, προ, I think it properly requires to be here rendered, by "*at*" or "*near to*" rather than "*before*." Firstly, because my author (in speaking of the commencement of each quarter of the year, in the 11th Chapter, p. 93), has expressly stated that "the spring is to be dated from the new or full Moon taking place when the Sun is *nearest* (εγγιζα) to the first point of Aries; the summer from that, when he is *nearest* the first point of Cancer," &c., &c.; and (in p. 94) he states that certain general effects are brought about by the new or full Moon occurring *at* (κατα) the aforesaid points. Secondly, because, in a few lines further on, in speaking of the monthly consideration, p. 98, he again uses only εγγιζα, in reference to the present passage, in which, however, he has used only προ. Thirdly, it is a proper inference that he meant to point out here the new or full Moon which may happen *nearest* to the tropical or equinoctial points, because he has previously and explicitly taught that the principal variation of all things depends upon those points. Lastly, Allatius has here rendered the word by no other than *proximé*, which is also the word given in the Perugio Latin of 1646.

On the other hand, Whalley, in his note on the present chapter, says, that "according to this Prince of Astrologers" (meaning Ptolemy), "we are to observe the new or full Moon preceding the ingress, only, for our judgment on the succeeding quarter, and not the lunation succeeding: and the reason I conceive to be, because the lunation, which immediately precedes the ingress, carries its influence to the very position of the ingress itself, but not so that which follows the ingress." Wing, in his Introduction to the Ephemerides (London, 1652) also says, that "for the knowledge of the

weather, it is requisite to observe the conjunction or opposition of the luminaries next *preceding* the Sun's ingress into the first point of Aries."

Now, if a new or full Moon happen *immediately after* the Sun's transit or ingress, the previous full or new Moon must have happened *a fortnight before* the said transit or ingress; and, after considering the other parts of Ptolemy's doctrine, I do not conceive, that he intended to teach, in this chapter, that a *previous* lunation, when at so great a distance before the important ingress, would have a greater influence over the ensuing quarter of the year, than a *subsequent* lunation taking place so closely after the said ingress.

[104]"*Both the places.*" These are the places of the new or full Moon, and of the following angle; as before mentioned with regard to the quarterly consideration.

[105]Similar precepts may be found finely illustrated in Virgil's 1st Georgic, *vide* I, 433 *et infra*:

"Sol quoque et exoriens et cum se condit in undas
Signa dabit:"——

[106]Virgil has said almost the same thing in these beautiful lines:

"At si virgineum suffuderit ore ruborem
Ventus erit: vento semper rubet aurea Phœbe."—*Georg.* I, l. 430.

See also the whole passage, beginning at l. 424:

"Si vero Solem ad rapidum Lunasque sequentes
Ordine respicies," &c.

[107]At this place, the following sentence, not found in the Greek, is inserted in a Latin translation:

"If the northern of the two stars, situated one on each side of the Præsepe, and called the Asini, should not appear, the north wind will blow: but, if the southern one be invisible, the south wind."

[108]These coruscations are, perhaps, similar to those now known by the name of the Aurora Borealis.

[109]Virgil again:

"Sæpe etiam stellas vento impendente videbis
Præcipites cœlo labi."—&c. *Georg.* I, l. 365.

Zaid n. adwan

A great part of the 1st Georgic consists of astrological rules for predicting the weather, closely resembling the precepts here given by Ptolemy. Virgil is said to have adopted his doctrine from Aratus.

[110]The Division of Time is subsequently laid down by the author, in the last Chapter of the fourth Book.

[111]The words, thus marked " ", are not in the Greek, but in two Latin translations.

[112]It is, perhaps, needless to remark that modern improvements in science have superseded the use of this and other ancient instruments here mentioned.

[113]Although the "clepsydra," or water-clock, was commonly used among the ancients for various purposes, it appears, from Martian (a Latin writer, who lived about A. D. 490), that there was also a clepsydra in special use as an astrological engine.

[114]"*The Doctrine of Ascensions*," in allusion to the method of calculating the actual position of the ecliptic.

[115]"*Phase or configuration.*" Or, holding some authorized aspect to the degree in question.

[116]Or, on the ascendant.

[117]The precepts delivered in this Chapter have obtained the name of Ptolemy's Animodar: the term is probably Arabic, if it be not a corruption of the Latin words *animum*, or *animam*, *dare*, "giving animation or life"; yet this meaning seems scarcely close enough.

[118]In House, Triplicity, Exaltation, Term or Face.

[119]Δορυφορια· This word has been heretofore rendered "*satellitium*" and "satellites," but, as these terms do not seem sufficiently precise in their meaning, and are already in use to signify the minor orbs which revolve round a principal planet, I have ventured to anglicize the Greek word; the usual signification of which is a "bodyguard."

[120]Or, in other words, "should the stars, which attend the Sun, be such as rise *before him*; and those, which attend the Moon, such as rise *after* her."

[121]As described in Chap. XXVI, Book I.

[122]Saturn being applicable to the father, and Venus to the mother.

[123]The Perugio Latin translation, of 1646, inserts here, “and provided Saturn and the Sun are not impeded by being posited in unfortunate or unsuitable places.”

[124]“*Elevated.*” Moxon’s Mathematical Dictionary gives the following definition of this astrological term. “*Elevated.* A certain pre-eminence of one planet above another; or, a concurrence of two to a certain act, wherein one being stronger, is carried above the weaker, and does alter and depress its nature and influence: But wherein this being *elevated* consists, there are several opinions; some say when a planet is nearest the zenith, or meridian; others will have it only that planet is highest; or nearest to the Apogæon of his eccentric or epicycle. And Argol admits of all these, and several other advantages, and thence advises to collect the several testimonies, and that that planet, who has most, shall be said to be elevated above the other.” According to Whalley, Cardan’s opinion was that “that planet is most elevated which is more occidental and ponderous.” For myself, I conceive this opinion to be inaccurate, because, if Ptolemy meant to signify only the greater occidentality of the planet, he would (as in other instances) have used the word “*preceding*” instead of “*elevated above*”; and I incline to think, that *greater proximity to the zenith* is the truer, as well as more simple, meaning of the term “elevated.”

[125]By the quartile or opposition, as before mentioned.

[126]On this passage, Whalley remarks that “Ptolemy teacheth, from the child’s nativity, to erect schemes for the father and mother, and thence to give judgment, as if it were their proper nativities; the rule is this: If the nativity be diurnal, for the father, observe the degree the Sun is in, in the child’s nativity; and make that the degree ascending for the father; and conformable to that, order the cusps of all the other houses. If for the mother, use Venus. But if the nativity be nocturnal, for the father, take the place of Saturn; and for the mother, that of the Moon.” Whalley adds, that what in this chapter hath relation to the parents, is what shall happen to them *after* the nativity, and not *before*.

[127]Or, at the actual time of nativity.

[128]In spite of this declaration of the author, it seems, by Whalley’s note on this chapter, that Cardan maintained that the particular circumstances, liable to affect the brothers and sisters, might be inferred by adopting, as an ascendant, the degree of the planet holding chief dominion over the place of brethren, and erecting a scheme thereby; in a mode similar to that allowed by Ptolemy in the case of the parents.

[129]That is to say, from the angles in quartile (and therefore hostile also) to the mid-heaven.

[130]The text does not show whether it be necessary that Saturn and Mars should *both* be in the ascendant, in order to produce the effect described; nor whether the same effect would not follow, if one of them should be in the ascendant, and the other in the occidental angle, or even in some other position.

[131]*Vide* Chapter VI, Book I.

[132]The planet here alluded to, seems to be that which may be connected with most of the ruling places.

[133]I have looked in many other books for this word "*Anactores*" (plural of ανακτωρ), as designating three particular individuals born at the same birth; for which signification it is here used by Ptolemy; but my search has been in vain. Cicero has, however, written a passage, in which a word, very nearly resembling it, occurs, and which would seem to relate to the very persons alluded to by Ptolemy: viz. "The godship of the Dioscuri was established in various modes among the Greeks, and applied to various persons. One set consisted of three persons, who were styled at Athens the *Anactes*, and were the sons of Jupiter, the most ancient king, and Proserpine; their several names were Tritopatreus, Eubuleus and Dionysius." *De Nat. Deor.*, lib. 3, cap. 21.

[134]This is the second set of the Dioscuri, as stated by Cicero: they were the children of the third, or Cretan Jupiter (the son of Saturn) and Leda; their names were Castor, Pollux, and Helena. Helena, however, is not mentioned by Cicero.

[135]Core is a name of Proserpine; Liber, of Bacchus. And, although the mention here made of Ceres, Proserpine and Bacchus, as being the offspring of one and the same birth, does not accord with the usual notion of the genealogy of these divinities, it seems that Ptolemy did not so represent them without some reason. For, in cap. 24, lib. 2, *De Nat. Deor.*, Cicero speaks of Liber as having been deified conjointly with Ceres and Libera (another name of Proserpine); and adds, that "it may be understood, from the rites and mysteries of the worship, how the deification took place." It appears also, by Davies's notes on Cicero, that Livy and Tacitus both speak of the copartnership in divinity exercised by Liber, Libera and Ceres. There is not, however, any occasion at present to dive deeper into the question of the generation of these deities; for our author has advertised to

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them only to point out that so many males or females will be produced at one birth, under certain configurations of the stars.

[136]Whalley says here, “chiefly the ascendant and mid-heaven.”

[137]Whichever might have been nearer in time.

[138]It is perhaps superfluous to mention that the two kinds of animals here named (as well as many others) were venerated by the Ægyptians.

[139]The Greek says “enigmatical.”

[140]One Latin translation has rendered this word “stammerers”; and, as Harpocrates was the god of silence, Ptolemy has probably used the epithet to signify defect of speech.

[141]“Dumb.” The Greek is οδοντων εξερημενον, “*deprived of teeth*,” and Allatius has so translated it: but other translations render these words by *dumb*, which, considering the nature of Mercury, seems their preferable signification.

[142]A prorogator is either a luminary, planet, or a certain degree of the zodiac, which determines the duration of life, or the time of the accomplishment of any event: it is hereafter fully treated of in the 13th Chapter of this Book; which shows that, in the instance now mentioned, it would be a luminary, either in the ascendant, or in the mid-heaven.

[143]The epithet *anæretic* is a term of art, adopted from the Greek, signifying fatal, or destructive.

[144]The Latin translation, printed at Perugio in 1646, has here the following passage in addition: “But it must be seen which luminary may follow the other in the succession of the signs; for if the Moon should so follow the Sun, the part of Fortune is also to be numbered from the horoscope or ascendant, *according* to the succession of the signs. But if the Moon precede the Sun, the part of Fortune must be numbered from the ascendant, *contrary* to the succession of the signs.”

There is a long dissertation on the part of Fortune, in Cooper’s Placidus, from pp. 308 to 318; and, among the directions there given for computing its situation, the following seem the most accurate and simple: viz. “In the diurnal geniture, the Sun’s true distance from the east is to be added to the Moon’s right ascension, and in the nocturnal, subtracted; for the number thence arising will be the place and right ascension of the part of Fortune: and it always has the same declination with the Moon, both in number and name, wherever it is found. Again, let the Sun’s oblique

ascension, taken in the ascendant, be subtracted always from the oblique ascendant of the ascendant, as well in the day as in the night, and the remaining difference be added to the Moon's right ascension; the sum will be the right ascension of the part of Fortune, which will have the Moon's declination." It is shown also by this dissertation, that the situation of the part of Fortune must be necessarily confined to the lunar parallels; that it can but rarely be in the ecliptic; and that its latitude is ever varying. Cooper also adds, from Cardan's Commentaries on the Tetrabiblos, that "if the Moon is going from the conjunction to the opposition of the Sun, then the Moon follows the Sun, and the part of Fortune is always under the Earth, from the ascendant; but if the Moon has passed the opposition, she goes before the Sun, and the part of Fortune is before the ascendant, and always above the earth." This remark of Cardan's is, in effect, exactly equivalent to what is stated in the additional passage inserted in the Perugio Latin translation, and given above.

In the Primum Mobile of Placidus (Cooper's translation, p. 45), the following remark and example are given: "The part of Fortune is placed according to the Moon's distance from the Sun; and you must observe what rays the Moon has to the Sun, for the latter ought to have the same, and with the same excess or deficiency, as the part of Fortune to the horoscope. As the Moon is to the Sun, so is the part of Fortune to the horoscope; and as the Sun is to the horoscope, so is the Moon to the part of Fortune. So, in the nativity of Charles V, the Moon applies to the ultimate sextile of the Sun, but with a deficiency of 7° 45′: I subtract the 7° 45′ from 5° 34′ of Scorpio, the ultimate sextile to the horoscope, and the part of Fortune is placed in 28° 9′ of Libra." N.B.—In this nativity, according to Placidus, the Sun is in the second house, in 14° 30′ of Pisces: the Moon in the ascendant, in 6° 45′ of Capricorn; the ascendant is 5° 34′ of Capricorn; and the part Fortune is in the ninth house, in 28° 9′ of Libra.

[145]According to her position in the scheme of the nativity.

[146]Placidus, in remarking on the nativity of John di Colonna, after stating his opinion that it is an error to suppose that a malign influence to the horoscope, when the horoscope has *not* the primary signification of life is anæretic, says, that "the order and method which Ptolemy lays down for the election of a prorogator are quite absurd, unless life be at the disposal of a sole prime significator only." He proves by other arguments also, and by instances of the fact, that "*one only* signifies life, elected according to Ptolemy's method." (Cooper's translation, p. 184.)

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[147]"*Horary proportion.*" So the Perugio Latin of 1646; the Greek word, however, is ωριμαιαν, which seems to be compounded of ωρα and ιμαω; and, if so, the literal signification would be "extraction of hours."

[148]By the apparent motion of the planetary system. On this passage, Placidus has the following observations: "In directing the significator to the west, you must consider what stars or mundane rays are intercepted between the significator and the west; if fortunate, add their arc to the significator's arc of direction to the west; if unfortunate, subtract it from the same, and it will give the arc of direction, augmented or diminished according to Ptolemy. How largely and differently authors have spoken of this direction of the significator to the west, putting various constructions on the words of Ptolemy, is known to every one. See Cardan in his Commentaries, Maginus in Prim. Mob. and the Use of Legal Astrology in Physic, c. viii, where he delivers the sentiments of Naibod. Argol censures wholly this doctrine of Ptolemy's, of directing the moderator of life to the west, as vain and useless; but I say it is worthy of remark, and altogether comformable to truth; because then the rays and intermediate stars of the malign only lessen the arc of direction to the west, and do not destroy life, when, by a right direction, the moderator or life does not remain at the same time with the malignant planet: for, should this happen, they kill, without any manner of doubt." (Cooper's translation, pp. 106 and 108.)

[149]"*Horary times.*" These are the number of equatorial degrees which any degree of the zodiac may appear, in a certain latitude on the earth, to transit in an equatorial hour.

[150]By the apparent motion of the planetary system.

[151]In reference to this passage, Placidus, in speaking of the death of Octavian Vestrius of Rome, has these words: "the Moon is found in a parallel declination of Mars, and Saturn with the opposition of Mars; the sextile of Jupiter to the Sun could give no assistance, because Jupiter is cadent, and the ray sextile is very weak, especially when it is the principal ray: for which reason, Ptolemy, in the chapter of Life, when he mentions the planets that are able to save in the courses of the infortunes, does not name the sextile, but the quartile, trine, and opposition; because the sextile ray is feeble, particularly when it is less than 60°: neither could Venus assist, as she was cadent from the house, and in a sign inimical to the Sun," &c. (Cooper's Translation, p. 286.)

[152]Literally, and perhaps more properly, "its meeter."

[153]That is to say, orbs, in contradistinction to prorogations made by aspects or degrees merely.

[154]Of the stars and places brought into configuration.

[155]Whalley's translation of this passage is in direct contradiction to the sense: and even that of Allatius, as well as other Latin ones, are (if strictly correct) confused in their meaning.

[156]"*Ascensional times.*" These are, in other words, the number of degrees of the equator, equivalent to a certain number of zodiacal degrees, ascending in any particular latitude. They are also otherwise called the *oblique ascension* of such zodiacal degrees.

[157]"*Equatorial times*" here signify degrees of the equator, by which all time is measured.

[158]That is to say, of the preceding and of the succeeding body of degree.

[159]Which may be intercepted in the arc between them.

[160]This number is that of the oblique descensional times of the intercepted arc, or of the oblique ascensional times of the arc opposite to it. The whole of the instructions in this paragraph are fully exemplified in the following chapter.

[161]Or, times to be reckoned in another manner.

[162]On this passage, there has been founded (to use Whalley's words) "what we call Mundane Parallels, or parallels in the world. And, as zodiacal parallels are equal distances from the tropical or equinoctial circles, so mundane parallels are a like equal distance from the horizontal or meridianal points or circles. And as zodiacal parallels are measured by the zodiacal circle, so those mundane parallels are measured by the diurnal or nocturnal arcs: and just so long as the Sun or any other planet is, in proceeding from the cusp of the twelfth House to the cusp of the tenth, the same Sun or other planet will be in proceeding from the cusp of the tenth to the cusp of the eighth House. And the distance between Sun-rising and setting, is the diurnal arc which the meridian cuts in two equal parts. In directions, these mundane parallels have a twofold consideration: first, simple; secondly, according to the rapt motion of the earth, or the *primum mobile*: all which have been largely explained by the learned Monk, Placidus," &c. That Author has certainly stated, in one of his Theses, that "those seats, or parts of the circle, are to be received, in which the stars, having a different declination, effect equal temporal hours" (p. 22, Cooper's Translation), and he has fully exemplified this principle in other parts of his "Primum Mobile"; but Ptolemy here speaks

only of *one* of the *semi*circles between the horizon and meridian, without reference to any other semicircle, corresponding in distance from the horizon and mid-heaven; and all that he has said on the subject amounts only to this, that the prorogation is completed when the succeeding place arrives at the same semicircle on which the preceding place had been posited.

[163]The ascendant, mid-heaven, and western horizon; as mentioned in the preceding paragraph.

[164]*Vide* Note ², p. 95.

[165]This, in the Northern Hemisphere, would be the latitude of Alexandria (where Ptolemy flourished), or, in his own words, that of the 3rd Climate, passing through Lower Egypt, numbered 30° 22′.—*Vide* extracts from the Tables of the Almagest, inserted in the Appendix.

[166]This is the magnitude of the diurnal temporal hour of the first point of Gemini in the latitude prescribed.

[167]By right ascension, as shown by the Extract, inserted in the Appendix, from the Tables of Ascensions in the Almagest. The exact distance, however, according to that Table, is 147° 44′.

[168]Or rather, according to the Table, 102° 39′.

[169]That is to say, of the oblique ascension, which is here required to be reckoned; because the prorogatory and preceding place is in the ascendant. *Vide* p. 95, and Note ² in p. 94. And the first point of Gemini, on arriving at the ascendant, will be distant from the mid-heaven 102° 39′ by right ascension; the 13th degree of Aquarius being then in culmination in the prescribed latitude. The oblique ascensions in the latitude 30° 22′ N. are also shown in the extract referred to in the preceding note: and it thereby appears, that Aries and Taurus ascend in 45° 5′, instead of 46°.

[170]Or, rather, 57° 44′—by right ascension.—*Vide* extract above referred to.

[171]*Vide* p. 95

[172]Or on the cusp of the 7th House.

[173]Or, rather, 32° 16′—by right ascension again.—*Vide* extract as before.

[174]By right ascension. The amount according to the Table is, however, 102° 39′, as before stated.

[175]On which the 10th degree of Virgo will then be posited.

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[176]By oblique descension and ascension: *Vide* p.95.—The Table shows the amount to be 70° 23′.

[177]In reference to p. 95, and Note ¹ in the same page.

[178]The 18th degree of Cancer being then in culmination.

[179]Or semi-diurnal arcs, each equal to six temporal hours.

[180]The amount of the progressive difference of the times of prorogation, as here mentioned, is of course only applicable to the parallel of declination of the first point of Gemini, in the latitude before quoted. It must necessarily vary in all other parallels of declination, and also in all other latitudes.

[181]Oblique ascension.

[182]The times of oblique descension of any arc of the zodiac are equal to the times of oblique ascension of its opposite arc; as before explained.

[183]That is to say, at the time of the 1st point of Aries transiting the cusp of each angle respectively.

[184]The calculation of time may be greatly facilitated by the use of a zodiacal planisphere, said to have been invented about thirty years ago by Mr. Ranger, who died without making his invention public. The invention consists of a set of instruments perfectly adapted, as far as relates to the zodiac, for astronomical, as well as astrological, purposes; and the completeness with which it solves, in the most intelligible and expeditious manner, all the astronomical problems of the zodiac, deserves attention. Whether a similar planisphere was known in the days of Placidus, I am not aware; but it is worthy of remark that the following words occur in his "Primum Mobile," and seem almost to have been predicted of Mr. Ranger's planisphere:—"If any one would provide himself with a Ptolemaic planisphere, with the horary circles, crepuscules, the zodiac's latitude, and all other things requisite, it would be of very great service towards foreseeing the aspects." (Cooper's Translation, p. 87.) In the Appendix will be found a plate, containing diagrams drawn by the instruments in question, which, though not completely filled up, will show how easily, and, at the same time, how accurately, the measure of time in directions may be ascertained. The said diagrams have been adapted to the "exemplification" here given by Ptolemy; one of them being

laid down for the latitude of Alexandria, and the other for the latitude of southern Britain (51° 30′ N.), with similar positions of the preceding and succeeding places adverted to in the text.

[185]These meetings and descensions are technically termed “directions.”

[186]On these words Placidus has the following remark: “The revolutions may possess some virtue, but only according to the constitution of the stars to the places of the prorogators of the nativity, and their places of direction, but no farther; as Ptolemy was of opinion, and briefly expresses himself in his Chapter of Life. ‘Those who are afflicted, both in the places and conclusions of the years, by the revolution of the stars infecting the principal places, have reason to expect certain death.’” (Cooper’s Translation, p. 127.)

[187]Of the significators before mentioned.

[188]That of the ascendant, and that of the Moon.

[189]The original word is (in the accusative plural) αιγοηους, which Allatius has rendered, by “*pedibus caprinis*,” *goat-footed*, as if it were compounded of αιξ capra and πους *pes*; but the preferable derivation seems to be from αιξ and ωψ *vultus*; meaning “*goat-faced*.”

[190]From any one of the said planets.

[191]*Vide* Chap. VIII, Book I.

[192]The Greek is ποιουμενοι φασεις; literally “*making apparition*”; but the subsequent context seems to require the meaning I have adopted.

[193]The parts of the signs in which the planets are posited.

[194]For the operative qualities of the other constellations, *vide* Chapters X and XI, Book I.

[195]The sixth house.

[196]This seems to imply, if Saturn be in one of Venus’s places of dignity, and Venus in one of Saturn’s. Such a counterposition is technically termed “mutual reception.”

[197]In her extreme latitude, whether north or south.

[198]Της ιερας νοσου; literally, “the holy disease,” which authors have explained to mean epilepsy. Perhaps the disease was anciently called holy, because the patient, when possessed by the fit, seemed to be under the influence of some supernatural agency.

[199]That is to say, in the commencement of her separation from the aspect or conjunction of such stars.

[200]The Greek is μεταμελητικους, which means "penitent," or "prone to repentance," or "to subsequent regret." It is difficult to convey its precise meaning in the text.

[201]*Vide* Chapter XXVI, Book I.

[202]That of Mercury, and that of the Moon.

[203]This seems to imply, if well placed in elevation; as, in the mid-heaven, for instance, or in a conspicuous situation; and in possession of dignities.

[204]Or, persons: the Greek is φιλοσωματους.

[205]Or, persons: μισοσωματονς.

[206]Πρσς μιξιν θηλειων και αρρενων διακειμενσυς.

[207]Προς αρρενας δε κεκιννμενους και ζηλοτυπους.

[208]Παιδων διαφθορεας.

[209]That is to say, in her extreme latitude, whether south or north.

[210]Epilepsy is defined to be "a conclusive motion of the whole body, or some parts of its parts, accompanied with a loss of sense." The knowledge of this latter effect probably induced the author to rank it among diseases of the mind.

[211]Of Mercury, the Moon, and the ascendant.

[212]Εσπερινοι; perhaps, more properly, *nocturnal*; the word being used in contrast to ημερινοι, *diurnal*.

[213]That is to say, such events as are independent of the will, and not necessarily consequent on any peculiar conformation of the mind or body.

[214]*Vide* Chapter XIII of the 3rd Book.

[215]I have considered the words, γυναικειων δωρερεων, as comprising "*the dowry of wives*," as well as other "*gifts from women*."

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[216]That is to say, its duration will depend on the time requisite to complete the arc of direction or prorogation between the stars, operating the loss, and the places which give the wealth. And the calculation is to be made as pointed out in the 14th and 15th Chapters of the 3rd Book.

[217]It seems that there have been different opinions on this point. Placidus makes the following remark on the subject: "I do not take the dignities from the horoscope, but from the Sun and Medium Cœli, according to Ptolemy and others." (Cooper's Translation, p. 121.)

[218]The Perugio Latin, of 1646, says, "If either both luminaries, or only that one of the *chief quality*" (which Whalley defines to be the Sun by day, and the Moon by night) "be in an angle," &c.

[219]*Doryphory*. *Vide* Chapter V of the 3rd Book On the present passage, Placidus has the following words: "You are not to observe what is generally alleged by professors, respecting the satellites" (*quasi* doryphory) "of the luminaries, for dignities; viz. that the satellites are those planets which are found within 30°, on either side of the luminaries; but that a satellite is (also) any kind of aspect of the stars to the luminaries of what kind soever: which, if it be made by application, its power extends inwardly over the whole orb of light of the aspecting planet, and the more so, as the proximity is greater; but, by separation, it is not so. This doctrine may be seen in several chapters of Ptolemy; for, an aspecting star influences the significator, and disposes him to produce effects co-natural to him, by a subsequent direction. But a star of no aspect does not predispose the significator, and produces very little or no effect of its nature, by a subsequent direction; this is the true doctrine of the stars." (Cooper's Translation, pp. 124, 125.)

[220]The angle of the mid-heaven; see the first note to this Chapter.

[221]See the 4th Chapter of the 8th Book of the Almagest inserted in the Appendix.

[222]The Greek says merely "that one having the dominion," without specifying the place of dominion: the Latin printed at Perugio, is, however, "*dominum accipe medii cœli*," which is certainly the sense required by the tenor of the previous instructions. Whalley also has similarly rendered it.

[223]Among the ancients, a garland was an indispensable decoration at all public ceremonies, whether civil or religious, and at private banquets. The making of garlands was, therefore, a considerable employment.

[224]It would seem, from "garland-wearers" being placed here in connection with "prize-wrestlers" (αθληται), that the author intended to point out persons competent to obtain the victors' wreath in public exhibitions. But it appears that the word σεφανηφορος, *garland-wearer*, also signifies a person who was annually chosen by the priests to superintend religious ceremonies, an office similar to that of high priest. According to Athenæus, the Stephanephorus of Tarsos was invested with a purple tunic, edged or striped with white, and wore the laurel chaplet, which Plato, in the treatise *de Legibus*, describes as being constantly worn by these officers, although the other priests wore it only during the performance of the ceremonies.

[225]Meaning probably "if in mutual reception," which position has been before explained.

[226]Or makers of hieroglyphics—ιερογλυφοι.

[227]That is to say, the mid-heaven; as stated in the 4th Chapter of the 3rd Book, and in the commencement of the present Chapter.

[228]This mode of divination, as practised by the Greeks, is mentioned by Potter. It is likewise described by a learned Doctor of Medicine, Geo. Pictorius Vigillanus (in his Treatise "de Speciebus Magiæ Ceremonialis," printed at Strasburgh, 1531), as being used "when the fraudulent vanity of a dæmon renders things more like each other than eggs are to eggs." And, according to this writer, it is practised by exorcising water, and pouring it into a basin, wherein the vain and refractory dæmon is immersed: the said dæmon will sometimes remain at the bottom, and sometimes raise himself to the surface, sending forth a slender hissing; out of which the desired responses are to be formed.

[229]Κρασεσι των χρωματων.—These words have been rendered literally, but they seem to contain some figurative meaning, rather than a literal one. Perhaps the preferable sense of them is, "*by a mixture of views*," or "*from various pursuits being blended together*."

[230]The words marked with inverted commas are not in the Greek; they are found, however, in two Latin translations; that of Basle, 1541, and that of Perugio, 1646.

[231]In other Editions, "whether by conjunction or aspect."

[232]"*Saturn.*" Not found in the Elzevir edition, but in others.

[233]The words thus marked “ ” are not found in the Elzevir edition, but appear in the Latin one of Basle, 1541.

[234]Περι παιδας επιθυμητικους.

[235]That is to say, from the new and the full Moon.

[236]By mutual reception; according to Whalley, and also according to the Latin copy of Perugio, 1646.

[237]Meaning, probably, if the Moon in the husband’s nativity should be in the same position as the Sun in the wife’s nativity, or harmoniously configurated with that position.

[238]The exaltation of Venus being in Pisces, and that of Mars in Capricorn. *Vide* Chapters XXI and XXII, Book I.

[239]Libra being Venus’s house, and in Saturn’s triplicity; and Capricorn being Saturn’s house, and in Venus’s triplicity. *Vide* Chapters XX and XXI, Book I.

[240]*Vide* Note ¹ in p. 126.

[241]Instead of the Moon.

[242]*Vide* Note ¹ in p. 126.

[243]Of the planets before specified.

[244]These are such signs as are connected with each other in any manner similar to that before described, as connecting Capricorn with Pisces, and with Libra; or, in other words, signs common to the planets configurated.

[245]The following also occurs here: “και ει μεν ο εις τωνασερων δυτικος, ο δε ετερος ανατολικος εσι, και προς ανδρας και γυναικας εσονται διακειμενοι, ουχ’ υπερβολικως δε, ει δε αμφοτεροι οι ασερες δυτικοι ευρεθωσι, προς μονον το θηλυ εσονται καταφερεις. θηλυκων δε των ζωδιων υπαρχοντων εν οις οι ασερες, και αυτοι παοχειν ανεξονται τα του θηλυος. ει δε αμφοτεροι ανατολικοι ωσι, προς μονον το αρρεν ερμητικως εξουσι. των δε ζωδιον αρσενικων οντων, προς πασαν αρσενικην ηλικιαν.”

[246]To this the following sentence succeeds: εαν δε αρρενικως διακειμενοι ωσιν οι ασερες, και προς το ποιειυ.

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[247]The angle of the mid-heaven.

[248]The meaning, apparent from the commencement of the chapter, is this: “Should such planets be in the mid-heaven or its succedent house, or configurated with either.”

[249]Μοναδικην, single, or one at a birth.

[250]Διδυμογωνιαν, double, or two at a birth.

[251]That on the mid-heaven, and that on the eleventh house.

[252]Or, regard each other within the distance of seventeen degrees.

[253]That is to say; if the places of the Sun, &c., in one nativity be configurated with such parts of the zodiac as are occupied by the Sun, &c., in the other nativity.

[254]Of any of the four places above described.

[255]Than the rest of the places.

[256]Those of the Sun, Moon, Ascendant, and part of Fortune, as before mentioned.

[257]“—and the attachment, or disagreement, subsisting between them and their masters”;—so Allatius, and the Latin translation printed at Perugio.

[258]The twelfth house.

[259]The probable meaning is, “if not acting in concert”: but the Latin of Perugio says, “*si sint oppositi secundum longitudinem*.”

[260]There seems a misprint here in the original: δυσωδιων, “foul vapours,” instead of δυσοδων, “wildernesses.”

[261]On the places indicative of travelling.

[262]*Vide* the 14th Chapter of the 3rd Book; on the number of the modes of prorogation.

[263]That is to say, the sign and degree on the occidental horizon.

[264]See a subsequent note, p. 135, which gives an instance of the mode in which Placidus applied the power of the terms, in an anæretic direction.

[265]Δια σηψεων. Perhaps more properly, putridity or rottenness. The Perugio Latin translation renders it by “cancer.”

[266]Placidus, in treating of the nativity of Lewis, Cardinal Zachia, uses these words: “This example also teaches us what the sentiments of Ptolemy were concerning a violent death; when, in a peremptory place, both the enemies meet together, it is to be understood, that in the nativity the violence is sometimes first pre-ordained from the unfortunate position of the Apheta; at other times quite the contrary. But, because the direct direction happened to be in the terms of Mercury, the sickness was attended with a delirium and lethargy, so that you may perceive this to have been the true cause of the native’s death.” (Cooper’s Translation, pp. 198, 199.)

[267]Ειδε ανθωροσκοπησει προσοιον δηποτε των φωτων: which Allatius has translated, “if he should be in the ascendant opposed to either of the luminaries” (*si in horoscopo alteri luminum opponatur*); but the Latin copy of Basle, 1541, as well as that of Perugio, 1646, give the passage as now rendered. And it appears in a subsequent place, p. 201 (where the word ανθωροσκοπων occurs), that it can only be properly translated “*in opposition to the ascendant*.”

[268]Caput Medusæ.

[269]Ανθωροσκοπων. *Vide* note ³ in p. 135.

[270]That is to say, the lower heaven, or imum-cœli. Whalley has translated it, “*above* the earth,” instead of “*below*”; mistaking νπο for νπερ.

[271]On this chapter Whalley makes the following annotations: “One direction, how malevolent soever, rarely kills; and, in most nativities, there is required a train of malevolent directions to concur to death: where several malevolent directions concur so together, without the aid of intervenings of the benevolents, they fail not to destroy life.”

“In such trains of directions, the author here distinguisheth between the killing planet and the causer of the quality of death; for one planet doth not give both. The foremost of the malevolent train is the killing place, and shows the time of death; but the following directions, though benevolent, show the quality. If the train fall altogether, and none follow, for the quality observe those which precede, though at a distance and benevolent also; for, though the benevolent contribute to the preservation of life, yet they frequently specify the disease which is the cause of death. And with these, our author tells us, concur the configurating stars, the quality of the stars and signs, and the terms in which the lords happen. In violent deaths, the genethliacal positions of

the lights are to be observed, and how the malefics affect them, and (*how they*) are also concerned by directions in the quality or death." See also Chap. XIV, Book II.

[272]With respect to the periodical divisions of time.

[273]It will, of course, be remembered, that the Sun, in the Ptolemaic astronomy, is counted as a planetary orb.

[274]The Latin copy of Basle, 1541, says, "to marriages."

[275]"*Bodily*," or in conjunction.

[276]On this passage, Whalley remarks, "we are to observe in direction, that the star in exact ray with the prorogator shall be ruler until the prorogator meets another ray; that then the planet whose ray it is shall take the dominion, and so on. But if no planet aspect the hyleg (prorogator) exactly, that which casts its rays before the prorogator is to be taken for ruler of the time, till another planet's ray comes in by direction. And the lord of the term, in which the direction falls, must be considered as a co-partner in this dominion."

[277]*Vide* Chap. XIV, Book 3.

[278]The Greek is simply εις τα επομενα κατα ξωδιον; but the context proves that the entire meaning must be as now given, although the Latin translation of Perugio renders it "one year to each degree." Whalley explains that by annual periods "the author intends profections: for the taking of which, for every year from the birth, add one sign to the sign in which the aphetics are at birth, and the sign which ends at the year desired is the sign profectional for that year, and the lord of that sign is chronocrator (arbitor) for that year; so far as the degrees of that sign reach." For example, if a prorogator at birth be in 15° of Gemini, to 15° of Cancer serves the first year; but the first six months are ruled by Mercury, and the last six by the Moon and Jupiter; and so on.

[279]The Latin translation of Basle, 1541, says, "the lord of that sign in which the number shall terminate."

[280]Whalley says here, "let a sign be added for each month to the sign of the year. So, in the example before proposed, the last 15° of Gemini, and the first 15° of Cancer, shall serve for the first month: the last 15° of Cancer and the first 15° of Leo, for the second month; and so on. And for days, from 15° of Gemini to 15° of Cancer, rules two days and eight hours after birth, &c."

Placidus is of opinion, “that Ptolemy, speaking of annual places, is to be understood of the places of secondary directions; and that when he speaks of the menstrual, he hints at the places of progressions.” (Cooper’s Translation, pp. 25 and 57.)

[281]Placidus says, that “active ingresses, if they be similar, to the pre-ordained effects, cause them to influence; if dissimilar, they either diminish or retard; as Ptolemy has it in the last Chapter of Book IV.” (Cooper’s Translation, p. 27.)

[282]Placidus observes, that “the primary directions of the significators to their promittors, and the lords of the terms, Ptolemy calls the General Arbiters of Times, because they pre-ordain the general times of their effects; which, as its motion is slow and its perseverance long, discovers its effects after a very long time; that is, after months and years. In order that we may know, in this extent of time, on what particular month and day the effects appear, Ptolemy proposes these motions for observation, wherein, when the majority of the causes agree together, then doubtless the effect is accomplished, or most clearly manifests itself.” (Cooper’s Translation, p. 109.) And he says afterwards, in speaking of secondary directions, progressions, ingresses, &c., “these subsequent motions of the causes demand our greatest attention.” (*Ibid.*, p. 110.) In the Appendix to the same book, at p. 438, the proper equation of time, or measurement of the arcs of direction, is also treated of, in reference to the 16th canon of Placidus, which is as follows:—

“*To equate the Arc of Direction.* Add the arc of direction to the right ascension of the natal Sun; look for this sum in the table of right ascensions under the ecliptic, and take the degree and minute of longitude corresponding with that sum; then, in the best ephemeris, reckon in how many days and hours the Sun, from the day and hour of birth, has arrived at that degree and minute. The number of days indicate as many years; every two hours over, reckon a month.” (*Ibid.*, p. 55.)

[283]Whether general or annual.

[284]That is to say, by the opposition, trine, &c.

[285]On this side of the equator.

[286]Thus (according to the Table inserted at p. 152), in the climate or latitude of Lower Ægypt, the times of ascension between the first point of Gemini and the first point of Sagittarius, diametrically opposite, are 205° 18′, which, being divided by 15, give 13 hours 41 minutes and a fraction of equatorial time, as the length of the day of the first point of Gemini. And the same

number of times of ascension, divided by 12, give 17° 6′ and a fraction of the equator, as the length of the diurnal temporal hour. In the latitude of Southern Britain, the times of ascension between the same points as above mentioned are 236° 2′, which, divided by 15, give 15 hours 44 minutes and a fraction of equatorial time, as the length of the day of the first point of Gemini; and, if divided by 12, they produce 19° 40′ and a fraction of the equator, as the length of the diurnal temporal hour.

[287]Thus, the aggregate times of ascension, in a right sphere, of the first point of Gemini are 57° 44′; and, in the climate of Lower Ægypt, 45° 5′: the sixth part of the difference between them is 2° 6′ and a fraction, which, added to 15°, again makes the diurnal temporal hour of the first point of Gemini equal to 17° 6′ and a fraction of the equator. In the climate of Southern Britain, the aggregate times of ascension of the first point of Gemini are 29° 43′: the sixth part of the difference between that sum and 57° 44′ of right ascension is 4° 40′ and a fraction, which, added to 15°, makes the diurnal temporal hour of the first point of Gemini, in South Britain, equal to 19° 40′ and a fraction of the equator, as before shown.

[288]For example,

Diurnal horary times of the first point of Gemini in the latitude of Alexandria	17°	6′	30″
Number of temporal hours			12
	15)205	18	0
Diurnal equatorial hours of the first point of Gemini in the latitude of Alexandria	13	41	12
Diurnal horary times of the first point of Gemini in the latitude of Southern Britain	19°	40′	10″
Number of temporal hours			12
	15)236	2	0
Diurnal equatorial hours of the first point of Gemini in the latitude of Southern Britain	15	44	8

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[289]Let the first point of Gemini be on the meridian above the earth; the number of temporal hours since sunrise will then be 6, by which 17° 6′ 30″ are to multiplied. The product will be 102° 39′: this, added to 45° 5′, the aggregate number of the first point of Gemini in the latitude of Alexandria, will give 147° 44′, which, in the ascensions of the climate in question, will correspond to the 3d degree of Virgo, and show that to be the degree ascending. In the latitude of Southern Britain the total number would still amount to the same, viz. 147° 44′, but it would show 7° and about 30′ of Virgo to be ascending.

[290]Let the first point of Gemini be three temporal hours past the meridian; these hours reduced to degrees, in the latitude of Alexandria, will give 51° 19′, which, added to the right ascension of the first point of Gemini, make 109° 3′, showing the 18th degree of Cancer on the meridian. In the latitude of Southern Britain, these hours would produce 59°, which, added to the right ascension, would make 116° 44′, and show the 25th degree of Cancer on the meridian.

[291]Thus, in the latitude of Alexandria, when the first point of Gemini is three temporal hours past the meridian, the 16th degree of Libra will be on the ascendant, and the aggregate times of ascension of that degree in the said latitude are 109° 3′: by subtracting 90 from this sum, the remainder will be 19° 3′, the right ascension of the mid-heaven answering to the 18th degree of Cancer. In the latitude of Southern Britain, the 18th degree of Libra would be on the ascendant, of which degree the aggregate times of ascension in that latitude are 206° 44′, from which, if 90 be subtracted, the remainder will be 116° 44′, the right ascension of the mid-heaven answering to the 25th degree of Cancer. The converse of these operations seems too obvious to need explanation.

[292]Alexandria.

[293]Southern Britain.

[294]Moxon’s Mathematical Dictionary says, that the “Centiloquium is a book containing one hundred astrological aphorisms, commonly ascribed to Ptolemy, as its author, but by some to Hermes Trismegistus.” This account, however, seems to be inaccurate; for the Centiloquy attributed to Osiris’s contemporary and counsellor (eulogized by Lilly as having been “one of the wisest of all mortal men, and as ancient as Moses”), is very different from that known by the name of the Καρπος, or “Fruit of the Tetrabiblos.” Whether this latter Centiloquy be really the work of Ptolemy is another question: it has been usually edited as his, but some of the aphorisms seem to

relate to horary questions only, which are not adverted to in the Tetrabiblos, and there are others also which do not appear to result from the doctrine of that book.

[295]Of the same degree and sign.

[296]Or in obscure situations.

[297]Of the Sun and Moon.

[298]On this aphorism Partridge has said, “how Ptolemy meant it to be understood, I know not; and so I leave it.”

[299]Or part of heaven indicating the grant.

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ASTROLOGY:

HOW TO MAKE AND READ YOUR OWN HOROSCOPE

By

SEPHARIAL

EDITOR OF "MOORE'S" AND "OLD MOORE'S" ALMANACS AUTHOR OF "THE MANUAL OF ASTROLOGY," "PROGNOSTIC ASTRONOMY," "THE BIRTHDAY BOOK OF DESTINY," "THE CRYSTAL AND THE SEER," ETC.

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[Pg 5]

Preface to the Revised and Enlarged Edition

Since the publication of this small manual of practical Astrology, two editions of which have been exhausted, the attention given to the subject has so far extended as to create an increased demand for a concise work of this nature, designed for the initial use of students and offered at a price that is within the means of all. It is believed that the revision and enlargement of the present work will render it even more popular than hitherto with beginners.

The practical uses of Astrology are daily more and more recognized and appreciated, and although some of the higher and later developments of Astrology in its relation to every-day problems have necessarily been withheld from these pages, yet it is to be hoped that so much as is here presented of an abstruse and recondite science will enable the student to pursue the subject with increasing assurance and satisfaction, in which case doubtless he will readily discover for himself, and without any special pointing on my part, that Astrology is primarily and finally a practical and useful study.

There are, of course, many aspects of this fascinating subject which find no place in this small work, which deals solely with Genethliacal Astrology, or the doctrine of Nativities. Yet if it be true, as I think to be the case, that “the proper study for mankind is man,” then undoubtedly we are right in selecting this phase of Astrological Science as that to which the student should first devote himself.

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When we have thoroughly arrived at an understanding of the complex nature of human character and the primary causes of variety in expression, when we have seen[Pg 6] for ourselves how the many-coloured dome of Life overarches us of this sublunary world with its kaleidoscopic interplay of forces, we shall be to some extent better equipped not only to deal with character as we find it, but also to direct the forces of the human mind along channels which lead to the preservation of our social economy, and that not by any restrictive measures or harmful suppression of natural passions and powers, but by conversion of them into forms that are conservative and useful.

To apply oneself to the specialization of inherent faculty, to find the line of least resistance, and to discover the measure of one's own soul in the universe and the limit to which ambition can safely aspire, these are things necessary to be known and things that Astrology makes clear to the mind in the very earliest stages of our study.

And apart from the scientific verities to which the science of planetary influence directs us, there are other not less important and fascinating truths of a purely philosophic nature to which it inevitably impels the mind and which cannot fail to exercise a tremendous influence in the shaping of our thought in regard to the purpose of life. It places the thoughtful student in an entirely new position with regard to many of the deeper problems of existence, and it is certainly the fact that to those who newly come to its study, Astrology is a revelation, an enlightenment, and a conviction from which there is no possible or desirable escape.

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Astrology

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Introduction

From the earliest ages of the world's history the subject of Astrology has excited the interest of, and exercised a great influence over, the minds of a certain order of thinking men. The science has never been universal in its acceptance, though it is safe to say that, with its countless adherents in the East and the ever-increasing number of its advocates in the West, there is no faith which has a more universal application than the belief in the influence of the heavenly bodies over the destinies of human beings. It is not possible within the limits of a small handbook such as this to adequately consider the philosophic paradox which makes of Freewill in man a "necessity in play"; but it is obvious that the concept is not altogether unscientific, seeing that it is customary to speak of the "free path of vibration" in chemical atoms while at the same time it is known that these atoms have their restricted characteristics, modes of motion, &c., and are all subject to the general laws controlling the bodies of which they form integral parts. Let it suffice that if we can trace an actual connectedness between the disposition of the heavenly bodies at the moment of a birth and the known life and character of[Pg 10] the individual then born, and an exact correspondence between the course of events in that life with the changes occurring in the heavens subsequent to the moment of birth, we shall do well to accept the fact for what it is worth, and arrange our philosophic notions accordingly.

As far back as the year B.C. 2154, we find mention of the great importance attaching to the celestial phenomena in the minds of Chinese rulers. It is recorded in the Historical Classic of China that at that time the astrologers Hi and Ho neglected their duties so

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that when, on the 10th of October, there was a great eclipse of the Sun at Peking between seven and nine o'clock in the morning, the people were wholly unprepared for it, and "ran about here and there in the utmost consternation." For this offence Hi and Ho were deprived of their offices, their estates were confiscated and they were driven from the kingdom. Among the Hindus we have the classical writers Garga, Parashara, and Mihira, together with their legions of commentators. The Assyrian records are full of astrological allusions regarding the influence of planetary conjunctions and stellar positions. The Greek mythology is nothing but a vast system of cosmographical astrology, and there is no other history in it than what you may read in the constellations of the heavens and the corresponding evolution of the human race. Aristotle made it a part of his philosophy. Hipparchus, Hippocrates, Thales, Galenius, and others subscribed an intelligent belief in its principles. To Claudius Ptolemy, however, we are indebted for the first concise and scientific statement of its principles and practice, so far as Europe is concerned. He wrote the[Pg 11] Tetrabiblos, or Four Books, and laid the foundations of a true astrological science. Julius Firmicus confirmed Ptolemy and enlarged upon his observations. The subsequent discovery of the planets Uranus and Neptune by Herschel and Adams, widened the field of research and gave to later astrologers the clue to much that hitherto had been imperfectly understood. Not that these discoveries overturned the whole system of astrology, as some have imagined and foolishly stated, or that they negatived the conclusions drawn from the observed effects of the seven anciently known bodies of the solar system, but it became possible after a lapse of time to fill in the blank spaces and to account for certain events which had not been traced to the action of any of the already known planets. The discovery of argon did not destroy our conclusions regarding the nature and characteristics of oxygen or hydrogen or nitrogen, nor give an entirely new meaning to the word "atmosphere." If even so many as seven new planets should be discovered, there would yet not be a single paragraph of this book which would need revising. What is known regarding planetary action in human life is known with great certainty, and the effects of one planet can

never be confounded with those of another. Incomplete as it must needs be, it is yet a veritable science both as to its principles and practice. It claims for itself a place among the sciences for the sole reason that it is capable of mathematical demonstration, and deals only with the observed positions and motions of the heavenly bodies; and the man who holds to the principia of Newton, the solidarity of the solar system, the interaction of the planetary bodies and their consequent electrostatic effects[Pg 12] upon the Earth, cannot, while subject to the air he breathes, deny the foundation principles of astrology. The application of these principles to the facts of everyday life is solely a matter of prolonged research and tabulation upon an elaborate scale which has been going on for thousands of years in all parts of the world, so that all the reader has to do is to make his own horoscope and put the science to the test of true or false. The present writer is in a position to know that the study of astrology at the present day is no less sincere than widely spread, but few care to let their studies be known, for, as Prof. F. Max Müller recently said, "So great is the ignorance which confounds a science requiring the highest education, with that of the ordinary gipsy fortune-teller." That to which the great Kepler was compelled "by his unfailing experience of the course of events in harmony with the changes taking place in the heavens," to subscribe "an unwilling belief," the science which was practised and advocated by Tycho Brahe under all assaults of fortune and adverse opinion, the art that arrested the attention of the young Newton and set him pondering upon the problems of force and matter, which fascinated the minds of such men as Francis Bacon, Archbishop Usher, Haley, Sir George Witchell, Flamstead, and a host of others, is to-day the favourite theme of thousands of intelligent minds and bids fair to become a subject of popular inquiry.

It is believed that the present work will be of considerable assistance to those who seriously contemplate an initial study of the science of horoscopy, and although it by no means exhausts what is known on the subject, yet it will be found accurate and reliable as far as it goes,[Pg 13] and will enable any one of ordinary intelligence to test the

claims of Astrology for himself. This is as much as can be expected in the limits of a small handbook. The literature of the subject is considerable, and the present writer only takes credit to himself so far as his own wide experience and practice have enabled him to present the subject in a simple and brief manner.

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SECTION I

THE ALPHABET OF THE HEAVENS

CHAPTER I

THE PLANETS, THEIR NATURES AND TYPES

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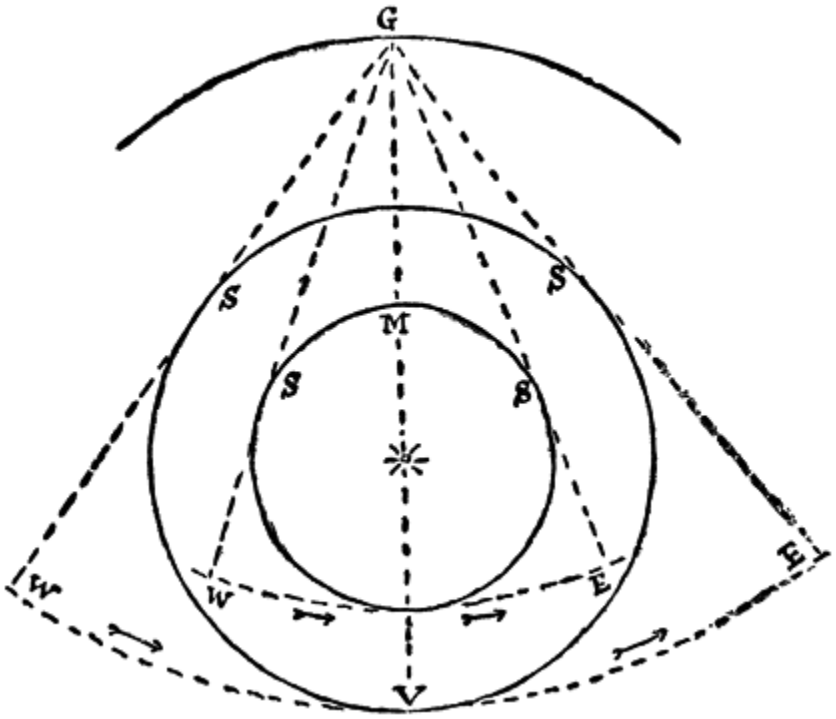
The luminaries and planets are known to astronomers under the following names and symbols:—

The Sun ⊙, Moon ☽, Neptune ♆, Uranus ♅, Saturn ♄, Jupiter ♃, Mars ♂, Venus ♀, and Mercury ☿.

Neptune revolves around the Sun in its distant orbit once in about 165 years. Uranus completes its orbital revolution in 84 years, Jupiter in 12 years, Mars in about 15 months, Venus in 11 months, and Mercury in 18 weeks. If you imagine these bodies to be revolving in a plane around the Sun and yourself to be standing within the Sun, the motions of these bodies will appear almost uniform and always in one direction. Were the orbits of the planets circular and the Sun holding the centre of the circle, their motions would be constant, that is to say, always in the same direction and at the same rate. But the orbits are elliptical, and the Sun holds a position in one of the foci of each[Pg 18] ellipse. Consequently the planets are at times further from the Sun than at others, and they are then said to be in their aphelion, the opposite point of the orbit where they are nearest to the Sun being called the perihelion. When at aphelion the planets move slower, and when at perihelion they move quicker than at the mean distance. Astronomers employ an imaginary circular orbit for the planets, in which they move at an uniform rate of velocity, which is called the mean motion. This is subject to an equation depending on the position of the planet in its orbit, and it determines the difference between the imaginary planet and the true planet. The equation itself depends on the eccentricity of the orbit, that is to say, its relation to a circle drawn around the same focal centre. The Earth follows the same laws as all other bodies of the same system.

But if we imagine the Earth to be stationary in space and the centre around which the planets revolve, their motions present several irregularities. Mercury and Venus will then appear to revolve around the Sun while the Sun revolves around the Earth, sometimes being between the Earth and the Sun, which is called an Inferior conjunction,

sometimes on the further side of the Sun away from the Earth, as at their Superior conjunction; and again, at other times to the right or left of the Sun, in East or West elongation. The other planets, having orbits greater than that of the Earth, will appear to revolve around it at constantly varying distances and velocities. At certain points in their orbits they will appear to remain stationary in the same part of the Zodiac. The annexed illustration will assist the lay reader perhaps. The body M is Mercury[Pg 19] when at Inferior conjunction with the Sun, as seen from the Earth. The letter V is the planet Venus at Superior conjunction with the Sun. The points W and E are the points of greatest elongation West and East, and the letter S shows the points in the orbit at which those bodies appear to be stationary when viewed from the Earth, at G. As seen from the Earth, Venus would appear to be direct and Mercury retrograde.



Astrologically we regard the Earth as the passive subject of planetary influence, and we have therefore to regard it as the centre of the field of activity. If we were making a horoscope for an inhabitant of the planet Mars, we should make Mars the centre of the system. The planets' positions are therefore taken as from the centre of the Earth

(Geocentric), and not[Pg 20] as from the centre of the Sun (Heliocentric). An astrological Ephemeris of the planets' motions is employed for this purpose (see Sect. II., chap, i.), and there are 480,000 of these sold to astrologers or students of astrology every year, from which fact it is possible to draw one's own conclusions as to the state of Astrology in the West. These figures, of course, do not include the millions of almanac readers nor the Oriental students, who prepare their own ephemerides.

Knowing the simple natures of the several planets we are able to arrive at an estimate of their effects when acting in combination.

Neptune acts upon the mind of man to produce a highly-strung nervous temperament, often allied to either insanity or genius; neurosis, aphasia, &c. It produces complications in business and an involved state of affairs generally. Disposes to fraud, double-dealing, and irresponsible actions. In the body it produces waste of tissue and a consumptive habit.

Uranus gives an eccentric mind, waywardness, originality, inventiveness. Acting on the affairs of business, it produces sudden and unexpected developments, irregularities, rapid rise and fall, instability, unexpected turns of good and bad fortune. In the body it has relation to the nervous system, and its diseases are those of paralysis, lesion, and nervous derangement.

Saturn produces a thoughtful, sober, ponderable mind; steadfastness, patience, and endurance; disposition to routine and habit, method. In financial affairs it gives steady results commensurate with labour, success that is slow but sure, durance, hardships, privations. In the body it is related to the osseous[Pg 21] system, and its effects are brought about by obstructions, chills, and inhibition of function.

Jupiter gives joviality, optimism, bountifulness, generosity, a rich and fruitful mind. It renders the subject fortunate in his affairs, giving success and frequently opulence. With this planet strong in the horoscope a person never "goes under." In the body it has

relation to the arterial process, and its diseases are those which arise from surfeit, congestion, and plethora.

Mars confers a sense of freedom, much ambition and executive ability, frankness, truthfulness, and scorn of consequence. It renders the mind forceful and militant, stimulates to new projects and enterprises, and in the body of man has relation to the muscular system. Its diseases are those which arise from inflammatory action in the tissues.

Venus confers poesy, good taste, fine feeling, artistic powers, gentleness, docility, dalliance, and love of pleasure. It renders the affairs pleasant and prosperous, giving profit from both artistic and rustic pursuits. Next to Jupiter it is the most benefic of the planets in its action on mankind. In the body it has relation to the venous system, and its diseases are those which arise from impurities of the blood, scorbutic and zymotic diseases, eczema, smallpox, measles, &c.

Mercury renders its subjects active, versatile, apt and business-like, disposed to much commerce, whether of the mind or the market, and eager in the pursuit of knowledge; alert, and well-informed. Its influence on affairs of life is variable, for it always translates the nature of that planet to which at birth it is in nearest aspect (Sect. I., chap. iv.). In the body it is[Pg 22] related to the sensorium, the centres of sensation, and reflexly controls the nerves of action.

The Moon gives gracefulness of manner and suavity of speech, softness and adaptability of nature, variableness, love of change, romance, and adventure; disposed to exploration and voyaging. In the body it corresponds to the glandular system, and its diseases are those incidental to the lymphatic glands and vascular tissue.

The Sun renders its subjects magnanimous, noble, proud, despising all mean and sordid actions; loyal, truthful, and fearless. It produces honours and the favour of dignitaries,

and renders the subject fortunate in the control of his affairs. In the body it controls the vital principle.

The types of persons produced by the various planets are very distinct, the chief features of each being as follows:—

Neptune—Thin, nervous-looking people, blue eyes, soft, silky hair, thin and usually long faces, frequently wearing a strained or startled look. *Uranus*—Tall, wiry, and energetic figures, alert, muscular, spasmodic, and with some touch of eccentricity. *Saturn*—Dark and lean people, small, deep-set eyes, heavy brows, long noses, thin lips, and sallow complexions. *Jupiter*—Full bodied, robust men, large and expressive blue or brown eyes, arched brows, high foreheads, oval faces, and rich brown hair. *Mars*—Strong, muscular, and athletic bodies, ruddy complexion, grey eyes, prominent brows, sloping forehead, and usually some mark or scar in the face. *Sun*—Fresh, clear complexion, blue or grey eyes, round head, broad shoulders, strong jaws, upright and dignified carriage. *Venus*—Elegant, well-groomed,[Pg 23] and often dainty-looking people, with blue or soft brown eyes, brown hair, fine teeth and finger-nails, small feet and short fleshy hands. *Mercury*—Thin, tall, and active bodies, alert appearance, small and usually dark eyes; wide, thin lips, long arms and slender hands. Frequently great talkers and quick walkers. *Moon*—Rather short and fleshy people, with pale face, soft limpid eyes, sad brown or medium coloured hair, fine teeth, broad chest, and a tendency to a squat fulness of body. The forehead is usually high and broad.

Look at the people as they pass you in the street. Bring them if possible under one or other of these types. Consider what has been said of the planets' natures, and you have a ready key to something of their character and destiny.

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CHAPTER II

THE SIGNS OF THE ZODIAC

The Zodiac is an imaginary belt of the Heavens through which the Sun and planets move in their apparent revolutions round the Earth. It extends from 23° 27′ above the plane of the Equator to the same distance below it, being bounded by the Tropic of Cancer on the North and by that of Capricorn on the South. The Ecliptic is a circle transecting this belt at an angle of 23° 27′ to the plane of the Equator. The points where it cuts the Equator are called the Equinoxes.

The Ecliptic is divided into twelve equal sections, counting from the Vernal Equinox. These are called the Signs of the Zodiac. Each sign occupies 30 degrees of the circle.

Their names and symbols are as follows:—

1. Aries, the Ram ♈
2. Taurus, the Bull ♉
3. Gemini, the Twins ♊
4. Cancer, the Crab ♋
5. Leo, the Lion ♌
6. Virgo, the Virgin ♍
7. Libra, the Balance ♎
8. Scorpio, the Scorpion ♏
9. Sagittarius, the Hunter ♐
10. Capricornus, the Goat ♑
11. Aquarius, the Waterman ♒
12. Pisces, the Fishes ♓

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For Astrological purposes they are grouped according to the element and the constitution which they represent, thus:—

ELEMENTS.

Fire—Aries, Leo, Sagittarius.

Earth—Taurus, Virgo, Capricornus.

Air—Gemini, Libra, Aquarius.

Water—Cancer, Scorpio, Pisces.

CONSTITUTIONS.

Movable—Aries, Cancer, Libra, Capricornus.

Fixed—Taurus, Leo, Scorpio, Aquarius.

Flexed—Gemini, Virgo, Sagittarius, Pisces.

Every alternate sign, beginning with Aries, is male and the rest are female. Aries, male; Taurus, female; Gemini, male; Cancer, female, &c. The signs Aries, Leo, Capricornus are called barren, while Taurus, Cancer, Scorpio, and Pisces are fruitful. Aries governs the East, Cancer the North, Libra the West, and Capricornus the South.

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The Double-bodied signs are Gemini, Sagittarius, and Pisces. It is important that all these classifications should be learned, as they form an essential part of the doctrine of Astrology, and are frequently employed in the reading of a Horoscope.

The types of people under the various signs should also be known as intimately as possible. A person is said to be "under" a sign—that is to say, under its influence, when that sign is rising in the East at the[Pg 26] moment of birth. You will recognise these types among your friends and associates:—

Aries produces a person of lean body, long neck, high cheek-bones, grey eyes, sandy or sad brown hair, which is either wiry and straight or crisp and curling. The front teeth are usually large and prominent.

Taurus gives a full, thick-set body, strong neck and shoulders, full brown eyes, dark curling hair, full lips, rather wide mouth, and round, bullet-shaped head. The hands and feet are short and fleshy.

Gemini produces a tall, active, and upright body, long arms and legs, wide, thin lips, straight and often *retroussé* nose, lank, straight black hair, rather wide shoulders, and thin body.

Cancer denotes a rather short, squat figure, full lymphatic body, pale complexion, round face, broad forehead, sad brown hair, large aqueous eyes, full chest, short, fleshy hands and feet.

Leo renders its subjects tall, broad shouldered, fine and manly figures, small round head, fair complexion, blue or grey eyes, flaxen or fair brown hair, upright and fearless carriage.

Virgo renders the body thin and active, the head well developed, the forehead broad, hair light brown and waving off the forehead, eyes blue, shoulders broad, the type being of an intellectual or artistic form.

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Libra gives an elegant body, well-developed limbs, fine oval face, straight nose, fine blue eyes (sometimes deep brown), flaxen or chestnut hair, beautiful complexion. The highest types of beauty are to be found under this sign.

Scorpio gives a short, thick-set, and powerful figure,[Pg 27] broad, deep chest, dusky or sallow complexion, dark curling or crisp hair, strong and rather bowed legs. This is a very virile and robust type.

Sagittarius gives a tall person, well-made figure, elegant limbs, oval and rather long face, brown or chestnut hair growing off the forehead, fine expressive eyes, rather prominent and of a dark brown or blue colour, long nose, slightly aquiline.

Capricornus produces a slight and rather ill-formed person, long and scraggy neck, prominent features, narrow chin, weak and frequently decrepit limbs, weak chest and sloping shoulders. Frequently the figure is wiry and suggestive of considerable powers of endurance. The brows are prominent, the nose long, and the face thin and hard-set.

Aquarius contributes the finest types of beauty next to Libra. The Saxon type is dominant. A tall figure, well formed and rounded, fair complexion and blue eyes, flaxen hair, straight features, well-developed chin, and fine, clear forehead.

Pisces produces one of rather short stature, short limbs, lymphatic body, pale complexion, limpid blue eyes, black or brown eyes, short nose, full lips, round face, small hands and feet.

The short signs are Taurus, Cancer, Capricornus, and Pisces. The tall signs are Gemini, Leo, Sagittarius, and Aquarius. The others are of medium height.

The planets rising in each sign will always alter the type by impressing their own characteristics on the subject.

Each sign has a Ruler, and the position of the ruler of the rising sign has much to do with the physical confor[Pg 28]mation, as if Taurus be rising and Venus, its ruler, be in

Leo, the person will be taller and fairer than indicated by Taurus alone. Pure types are very uncommon.

The rulership of the planets in the signs is as follows:—

Saturn	governs	Aquarius	and	Capricornus.
Jupiter	governs	Pisces	and	Sagittarius.
Mars	governs	Aries	and	Scorpio.
Venus	governs	Taurus	and	Libra.
Mercury	governs	Gemini	and	Virgo.

The Moon governs Cancer, and Leo is governed by the Sun.

When a planet is found in a sign over which it is said to govern it acts more strongly than usual, and when in the opposite signs to those it governs it is said to be in its "fall," when it is weaker than usual.

Planets governing opposite signs to one another are said to be "enemies." Such do not produce harmonious and favourable results when acting in conjunction.

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CHAPTER III

THE CELESTIAL HOUSES

The imaginary circle which passes immediately over your head as you face the South is called the Prime Vertical. This is divided for astrological purposes into twelve equal divisions called Houses, six of which are above the horizon and six below it. They are counted from the East Horizon under the Earth to the West, and thence through the

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zenith to the East again. The figure in Section IV., chapter v., will make the idea easy of comprehension.

Each such division or House carries its own signification, and it has been ascertained beyond all doubt or cavil that the ruling of the Ancients in this matter is altogether reliable, however empirical it may appear.

The First House governs the personal appearance, but chiefly the face and head. The Second House rules over finance, movable effects, commerce. In the body it governs the neck and throat. The Third House governs short journeys, letters, and other means of communication, near relations or neighbours. In the body it governs the arms and lungs. The Fourth House governs real estate, the residence, the produce of the earth, the mother[Pg 30] of the subject, and the end of life. In the body, the breasts and thorax. The Fifth House governs progeny, the sex instincts, domestic relations, and social pleasures. In the body, the back and heart. The Sixth House governs the health, servants, and personal comforts of the subject, clothes, food, and other physical requisites, sanitation, hygiene. In the body it rules over the abdomen and lower viscera. The Seventh House has dominion over marriage, contracts, agreements, partners, and matters of exchange. In the body it has relation to the loins and kidneys. The Eighth House rules death, loss, legacies and dowries, and matters appertaining to the deceased. In the body it is related to the excretory system. The Ninth House is said to govern long journeys, publications, religious beliefs, foreign lands, and legal affairs. In the body it rules the thighs. The Tenth House rules over position, honour and fame of the subject, the father, superiors of all orders. In the body it rules over the knees. The Eleventh House governs friends, social relations, societies and companies with which the subject is concerned. In the body it has relation to the legs from calf to ankle. The Twelfth House rules ambushes, restraints, privations, imprisonments, confinements, and all limitations of the personal freedom. In the body it rules the ankles and feet.

Applying these significations to the interpretation of a horoscope it will be seen that if Mars should be rising at the moment of birth there will be a scar or mark on the face. Observations of this sort will frequently assist to determine the time of birth when it is not known. Similarly with other planets in the same or other Houses; but of this more anon.

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CHAPTER IV

THE ASTRONOMICAL ASPECTS

Aspects are certain angular distances measured on the Ecliptic, and they form a fundamental part of astrological science. Any planet may be good or bad in its effects on the character and destiny, according to the aspect that it throws to the chief points of the Horoscope. The aspects are: The semisquare aspect of 45 degrees, sextile of 60 degrees, square of 90 degrees, trine of 120 degrees, sesquiquadrate of 135 degrees, and the opposition of 180 degrees. There is also the conjunction, when bodies are in the same degree or part of a Sign.

The good aspects are the trine and sextile; the evil being the semisquare, square, sesquiquadrate, and opposition. The aspect of a planet determines its effects, whether for good or evil. The conjunction is good with good planets, such as Jupiter and Venus, and evil with malefic planets such as Mars and Saturn.

When planets are the same distance North or South of the Equator they are in parallel declination (p.d.), and they then act as if in conjunction. Also when planets are in mutual

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disposition, that is to say, occupying one another's signs, they act as if they were in conjunction.

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Planets in conjunction act according to their simple natures, but when in aspect, according to the nature of that aspect. The benefic planets Jupiter, Venus, Sun, Moon, and also Mercury when in good disposition with another planet or in a congenial Sign, produce good effects by their conjunctions and by their trine and sextile aspects; but when in square, semisquare, or sesquisquare aspect they are uniformly evil in effect. On the other hand, the malefic planets Neptune, Uranus, Saturn, and Mars, together with Mercury when ill-disposed or in uncongenial Signs, are evil in their effects when in conjunction with the significant points of the horoscope; also when in evil aspect; but they nevertheless produce good effects when in good aspect.

The Significators.

The more important points of the Horoscope to which aspect can be thrown are called "Significators." The general significators in any horoscope are the Sun, the Moon, the Midheaven (the degree which holds the meridian of the horoscope), and the Ascendant (the degree which is rising). But every planet can be a particular significator in its own province, namely, in the Sign which it rules, and the House in which it is found at birth.

In a general sense the Moon is significant of the mother, female relations, the personal health and fortunes and the changes incident to these. The Sun in the same way indicates the father, male relations, the vital principle, and position. Mercury is the significator of the mind and intellect, the faculties generally. Venus is significatrix of love affairs, domestic relations, plea[Pg 33]sures, and of young female relations, sisters, &c. Mars is significator of enterprises, strifes, and young male relations. Jupiter is significator of increase and emoluments; Saturn of legacies, inheritance, and aged persons; Uranus of civic and governmental bodies; Neptune of voyages and psychic experiences. The chief

points to be regarded, however, are the Midheaven, the Ascendant, and the places of the Sun and Moon.

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SECTION II

THE CONSTRUCTION OF A HOROSCOPE

CHAPTER I

THE EPHEMERIS AND ITS USES

An Ephemeris is an almanac of the planetary positions day by day throughout any given year. They are to be obtained at a cost of one shilling per year, in a convenient form specially adapted to the use of astrologers. In the first column will be found the Sidereal Time for the day, which is the Sun's Right Ascension or distance from the Vernal Equinox, expressed in Hours, Minutes, and Seconds, and equated to Mean Time at Greenwich. By merely adding the time after noon, or subtracting the hours and minutes before noon, at which the birth took place, you will obtain the Right Ascension of the Midheaven at the moment of birth. The use to which this is put will appear in the next chapter. It corresponds to a particular degree of the Zodiac which is in the Midheaven at the given time of birth.

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The next column contains the Sun's longitude at Noon for each day. By taking the position on one day from[Pg 35] that on the next day, the motion of the Sun for 24 hours is obtained, and a proportion of this for the hour of birth can easily be made. The mean motion of the Sun per day is 2½′, or 1 degree per day. In another column will be found the Moon's longitude, and in adjacent columns its declination and latitude. Declination is distance North or South of the Equator, and celestial latitude is distance North or South of the Ecliptic. The longitudes of the other bodies are also given for each day at noon.

The mean longitudinal progress of the several bodies is as follows: Sun, 2½′ per hour, or 1 degree per day; Moon, 32′ per hour, or 13 degrees per day; Neptune, 2′ per day; Uranus, 3′ per day; Saturn, about 5′ per day; Jupiter, about 12′ per day; Mars, 45′ per day, or about 2′ per hour; Venus, 72′ per day, or 3′ per hour; Mercury, 84′ per day, or 3½′ per hour. These increments are for direct motion only; the planets are, as already explained, sometimes retrograde and sometimes stationary. The Horoscope of birth is only concerned with the longitudes of the planets, but when one or more planets have the same declination North or South, they should be noted as being in Parallel, for they then act as if they were in conjunction.

Take in hand, then, the Ephemeris for the year of your birth and read this chapter with it in view. After understanding its construction, extract the Sidereal Time at Noon for the day of your birth and refer to the next chapter.

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CHAPTER II

TO ERECT A FIGURE OF THE HEAVENS

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Take the Sidereal time at noon on the day of birth, and add to it the hours and minutes after noon at which you were born, or if before noon, subtract from it the interval between the birth and noon. This will give the approximate Right Ascension of the Midheaven at birth. Thus, suppose a person to be born on May 1, 1890, at 3h. 30m. p.m. in London—

The Sidereal time, noon, May 1, 1890, is 2h. 36m. 28s.

To which add time p.m. …… … 3 30 0

Acceleration at 10″ per hour … … 0 0 34

Right Ascension of Midheaven at Birth 6h. 7m. 2s.

With this Right Ascension of the Midheaven you then refer to Tables of Houses for London (see Chapter III.), and against this quantity of Sidereal Time you will find, under the column marked 10, the sign and degree which corresponds to it, namely, the 2nd of Cancer. This is put at the head of the figure, and the rest of the signs are placed around the figure in their order as shown in the Table. Only six of the Houses are given in the [Pg 37] Tables, because the opposite Houses will have the *same* degrees of the *opposite* signs on them. Thus we read against the Right Ascension 6h. 7m. 28s. the following:—

10	11	12	Ascen.	2	3

Cancer 2, Leo 8, Virgo 8, Libra 1.33, Libra 26, Scorp. 26.

This means that the 2nd degree of Cancer was on the cusp of the Tenth House (the Midheaven) at the moment of the birth, Leo 8th on the cusp of the Eleventh House, Virgo 8th on the cusp of the Twelfth, Libra 1.33 on the Ascendant or Eastern Horizon, and so of the rest. On the cusp of the Fourth House we place Capricornus 2, because the Fourth House is opposite the 10th and the sign Capricornus is opposite to Cancer. On the cusp of the Fifth House we place Aquarius 8, because the Fifth House is opposite to the Eleventh, and Aquarius is opposite to Leo. When completed we find the cusps of the Houses as follows, opposite to those in the Tables:—

4 5 6 7 8 9

Capric. 2, Aquar. 8, Pisces 8, Aries 1.33, Aries 26, Taur. 26.

It is then only necessary to place the planets in the figure, as explained in the preceding chapter, and the figure of the Heavens is complete.

To Draw a Figure of the Heavens.

Take a pair of compasses, and with a radius, of about 2½ inches, describe a circle. Within this, and with a radius of about 2 inches, describe another. With the radius of this latter mark off six equal divisions, and then[Pg 38] equally divide these so as to make twelve. Within the figure draw a small circle, concentric with the others, to represent the Earth. From the points of division already obtained draw straight lines to the centre of the figure until they touch the circle of the Earth. You then have a figure which represents the Houses of the Heavens, being a twelvefold division of the Prime Vertical. The lines extending from the outer circles to the Earth are the cusps of the Houses (see fig. Section IV., chap. 5).

The degrees of the Zodiac which are upon the cusps of the Houses, as found in the Tables opposite a given Sidereal Time, are written over the several cusps in their order between the two outer circles. Reference to the Ephemeris for May 1, 1890, shows the Sun at noon in Taurus 11 degrees 2 minutes. Three and a half hours later it will have advanced about 8 minutes in longitude, so that its position will be in Taurus 11 degrees 10 minutes. This longitude falls in the Eighth House, and we therefore place the symbol of the Sun in that division of the Heavens and place against it the figures 11.10, so that as Aries 26 is on the cusp of the Eighth and Taurus 26 on the cusp of the Ninth House, the Sun's position in Taurus 11.10 will fall between these cusps, *i.e.*, in the Eighth House. The rest of the planets are placed in the figure according to their respective longitudes.

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CHAPTER III

THE TABLES OF HOUSES

The Tables of the Houses on pp. 40, 41, are calculated for the latitude of 51° 32′ North. This will serve for London and environs, and approximately for the South of England and the Midlands. Tables of Houses for other latitudes may be obtained through the booksellers, a useful set of half a dozen different latitudes being sold for one shilling.

In order to illustrate the uses to which these Tables may be put in the solution of astronomical problems, let us take the Sun's position in the horoscope for the 1st of May, 1890, and find when the Sun sets on that day on the horizon of London. The Sun is in Taurus, 11 degrees, and it will set when the opposite point of the Heavens is rising.

Find under the column marked “Ascen.” the 11th degree of Scorpio, and against it in the column marked “Sidereal Time” you will find 9h. 49m. 9s. This will be the Right Ascension of the Midheaven when the Sun sets on London. We have already seen that the Sidereal Time at noon on the 1st of May was 2h. 37m. 28s., and this, taken from the former Sidereal Time, gives about 7.12 p.m. as the time of sunset. Now in the example horoscope the birth took place at 3.30 p.m., and this time, taken from 7.12 p.m., gives 3h. 42m. from birth to sunset. If you multiply this by 15 to turn it into degrees and minutes of the Equator, you will obtain 55° 30′, which are the number of degrees which pass over the Midheaven from birth until sunset. At the rate of 1 degree for every year of life, this corresponds to 55½ years of age, when the subject of this horoscope would come under the adverse influence of the Sun opposition Ascendant, and would suffer some serious ill health of a feverish nature, incident to the throat (the part ruled by Taurus, the sign in which the Sun is situate). This is how predictions are made, but of this more anon.

[Pg 40]

Sidereal Time.	10 ♈	11 ♉	12 ♊	Ascen. ♋	2 ♌	3 ♍	Sidereal Time.	10 ♉	11 ♊	12 ♋	Ascen. ♌	2 ♍	3 ♍
H. M. S.	°	°	°	° ′	°	°	H. M. S.	°	°	°	° ′	°	°
0 0 0	0	9	22	26 36	12	3	1 51 37	0	9	17	16 28	4	28
0 3 40	1	10	23	27 17	13	3	1 55 27	1	10	18	17 8	5	29

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0	7	20	2	11	24	27	56	14	4	1	59	17	2	11	19	17	48	6	♎
0	11	0	3	12	25	28	42	15	5	2	3	8	3	12	19	18	28	7	1
0	14	41	4	13	25	29	17	15	6	2	6	59	4	13	20	19	9	8	2
0	18	21	5	14	26	29	55	16	7	2	10	51	5	14	21	19	49	9	2
0	22	2	6	15	27	0	♌ 34	17	8	2	14	44	6	15	22	20	29	9	3
0	25	42	7	16	28	1	14	18	8	2	18	37	7	16	22	21	10	10	4
0	29	23	8	17	29	1	55	18	9	2	22	31	8	17	23	21	51	11	5
0	33	4	9	18	♋	2	33	19	10	2	26	25	9	18	24	22	32	11	6
0	36	45	10	19	1	3	14	20	11	2	30	20	10	19	25	23	14	12	7
0	40	26	11	20	1	3	54	20	12	2	34	16	11	20	25	23	55	13	8
0	44	8	12	21	2	4	33	21	13	2	38	13	12	21	26	24	36	14	9
0	47	50	13	22	3	5	12	22	14	2	42	10	13	22	27	25	17	15	10
0	51	32	14	23	4	5	52	23	15	2	46	8	14	23	28	25	58	15	11

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0	55	14	15	24	5	6	30	23	15	2	50	7	15	24	29	26	40	16	12
0	58	5	16	25	6	7	9	24	16	2	54	7	16	25	29	27	22	17	12
1	2	40	17	26	6	7	50	25	17	2	58	7	17	26	♌	28	4	18	13
1	6	23	18	27	7	8	30	26	18	3	2	8	18	27	1	28	46	18	14
1	10	7	19	28	8	9	9	26	19	3	6	9	19	27	2	29	28	19	15
1	13	51	20	29	9	9	48	27	19	3	10	12	20	28	3	0	♍	12	20	16
1	17	35	21	♊	10	10	28	28	20	3	14	15	21	29	3	0	54	21	17
1	21	20	22	1	10	11	8	28	21	3	18	19	22	♋	4	1	36	22	18
1	25	6	23	2	11	11	48	29	22	3	22	23	23	1	5	2	20	22	19
1	28	52	24	3	12	12	28	♍	23	3	26	29	24	2	6	3	2	23	20
1	32	38	25	4	13	13	8	1	24	3	30	35	25	3	7	3	45	24	21
1	36	25	26	5	14	13	48	1	25	3	34	41	26	4	7	4	28	25	22

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1	40	12	27	6	14	14	28	2	25	3	38	49	27	5	8	5	11	26	23
1	44	0	28	7	15	15	8	3	26	3	42	57	28	6	9	5	54	27	24
1	47	48	29	8	16	15	48	4	27	3	47	6	29	7	10	6	28	27	25
1	51	37	30	9	17	16	28	4	28	3	51	15	30	8	11	7	21	28	25

Sidereal Time.	10 ♊	11 ♋	12 ♌	Ascen. ♍	2 ♍	3 ♎	Sidereal Time.	10 ♋	11 ♌	12 ♍	Ascen. ♎	2 ♎	3 ♏
H. M. S.	°	°	°	° ′	°	°	H. M. S.	°	°	°	° ′	°	°
3 51 15	0	8	11	7 21	28	25	6 0 0	0	6	6	0 0	24	24
3 55 25	1	19	12	8 5	29	26	6 4 22	1	7	7	0 47	25	25
3 59 36	2	10	12	8 49	♎	27	6 8 43	2	8	8	1 33	26	26

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4	3	48	3	10	13	9	33	1	28	6	13	5	3	9	9	2	19	27	27
4	8	0	4	11	14	10	17	2	29	6	17	26	4	10	10	3	5	27	28
4	12	13	5	12	15	11	2	2	♏	6	21	48	5	11	10	3	51	28	29
4	16	26	6	13	16	11	46	3	1	6	26	9	6	12	11	4	37	29	♐
4	20	40	7	14	17	12	30	4	2	6	30	30	7	13	12	5	23	♏	1
4	24	55	8	15	17	13	15	5	3	6	34	51	8	14	13	6	9	1	2
4	29	10	9	16	18	14	0	6	4	6	39	11	9	15	14	6	55	2	3
4	33	26	10	17	19	14	45	7	5	6	43	31	10	16	15	7	40	2	4

Zaid n. adwan

4	37	42	11	18	20	15	30	8	6	6	47	51	11	16	16	8	26	3	4
4	41	59	12	19	21	16	15	8	7	6	52	11	12	17	16	9	12	4	5
4	46	16	13	20	21	17	0	9	8	6	56	31	13	18	17	9	58	5	6
4	50	34	14	21	22	17	45	10	9	7	0	50	14	19	18	10	43	6	7
4	54	52	15	22	23	18	30	11	10	7	5	8	15	20	19	11	28	7	8
4	59	10	16	23	24	19	16	12	11	7	9	26	16	21	20	12	14	8	9
5	3	29	17	24	25	20	3	13	12	7	13	44	17	22	21	12	59	8	10
5	7	49	18	25	26	20	49	14	13	7	18	1	18	23	22	13	45	9	11

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5	12	9	19	25	27	21	35	14	14	7	22	18	19	24	23	14	30	10	12
5	16	29	20	26	28	22	20	15	14	7	26	34	20	25	24	15	15	11	13
5	20	49	21	27	28	23	6	16	15	7	30	50	21	26	25	16	0	12	14
5	25	9	22	28	29	23	51	17	16	7	35	5	22	27	25	16	45	13	15
5	29	30	23	29	♍	24	37	18	17	7	39	20	23	28	26	17	30	13	16
5	33	51	24	♌	1	25	23	19	18	7	43	34	24	29	27	18	15	14	17
5	38	12	25	1	2	26	9	20	19	7	47	47	25	♍	28	18	59	15	18
5	42	34	26	2	3	26	55	21	20	7	52	0	26	1	29	19	43	16	19
5	46	55	27	3	4	27	41	21	21	7	56	12	27	2	29	20	27	17	20

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5	51	17	28	4	4	28	27	22	22	8	0	24	28	3	♎	21	11	18	20
5	55	38	29	5	5	29	13	23	23	8	4	35	29	4	1	21	56	18	21
6	0	0	30	6	6	30	0	24	24	8	8	45	30	5	2	22	40	19	22

Sidereal Time.	10 ♌	11 ♍	12 ♎	Ascen. ♎	2 ♏	3 ♐	Sidereal Time.	10 ♍	11 ♎	12 ♎	Ascen. ♏	2 ♐	3 ♑
H. M. S.	°	°	°	° ′	°	°	H. M. S.	°	°	°	° ′	°	°
8 8 45	0	5	2	23 40	19	22	10 8 23	0	2	26	13 33	13	20
8 12 54	1	5	3	23 24	20	23	10 12 12	1	3	26	14 13	14	21
8 17 3	2	6	3	24 7	21	24	10 16 0	2	4	27	14 53	15	22

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8	21	11	3	7	4	24	50	22	25	10	19	48	3	5	28	15	38	15	23
8	25	19	4	8	5	25	34	23	26	10	23	35	4	5	29	16	13	16	24
8	29	26	5	9	6	26	18	23	27	10	27	22	5	6	29	16	52	17	25
8	33	31	6	10	7	27	1	24	28	10	31	8	6	7	♏	17	32	18	26
8	37	37	7	11	8	27	44	25	29	10	34	54	7	8	1	18	13	19	27
8	41	41	8	12	8	28	26	26	♑	10	38	40	8	9	2	18	52	20	28
8	45	45	9	13	9	29	8	27	1	10	42	25	9	10	2	19	31	20	29
8	49	48	10	14	10	29	50	27	2	10	46	9	10	11	3	20	11	21	♒

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8	53	51	11	15	11	0	♏	32	28	3	10	49	53	11	11	4	20	50	22	1
8	57	52	12	16	12	1		15	29	4	10	53	37	12	12	4	21	30	23	2
9	1	53	13	17	12	1		58	♐	4	10	57	20	13	13	5	22	9	24	3
9	5	53	14	18	13	2		39	1	5	11	1	3	14	14	6	22	49	24	4
9	9	53	15	18	14	3		21	1	6	11	4	46	15	15	7	23	23	25	5
9	13	52	16	19	15	4		3	2	7	11	8	28	16	16	7	24	8	26	6
9	17	50	17	20	16	4		44	3	8	11	12	10	17	17	8	24	47	27	8
9	21	47	18	21	16	5		26	3	9	11	15	22	18	17	9	25	27	28	9

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9	25	44	19	22	17	6	7	4	10	11	19	34	19	18	10	26	5	29	10
9	29	40	20	23	18	6	48	5	11	11	23	15	20	19	10	26	45	♑	11
9	33	35	21	24	18	7	29	5	12	11	26	56	21	20	11	27	25	0	12
9	37	29	22	25	19	8	9	6	13	11	30	37	22	21	12	28	5	1	13
9	41	23	23	26	20	8	50	7	14	11	34	18	23	22	13	28	44	2	14
9	45	16	24	27	21	9	31	8	15	11	37	58	24	23	13	29	24	3	15
9	49	9	25	28	22	10	11	9	16	11	41	39	25	23	14	0	♐ 3	4	16
9	53	1	26	28	23	10	51	9	17	11	45	19	26	24	15	0	43	5	17

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9	56	52	27	29	23	11	32	10	18	11	49	0	27	25	15	1	23	6	18
10	0	43	28	♎	24	12	12	11	19	11	52	40	28	26	16	2	3	6	19
10	4	33	29	1	25	12	53	12	20	11	56	20	29	27	17	2	43	7	20
10	8	23	30	2	26	13	33	13	20	12	0	0	30	27	17	3	23	8	20

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Sidereal Time.	10 ♎	11 ♎	12 ♏	Ascen. ♐		2 ♑	3 ♒	Sidereal Time.	10 ♏	11 ♏	12 ♐	Ascen. ♐		2 ♒	3 ♓
H. M. S.	°	°	°	°	′	°	°	H. M. S.	°	°	°	°	′	°	°
12 0 0	0	27	17	3	23	8	21	13 51 37	0	22	10	25	20	10	27
12 3 40	1	28	18	4	4	9	23	13 55 27	1	23	11	26	10	11	28
12 7 20	2	29	19	4	45	10	24	13 59 17	2	24	11	27	2	12	♈
12 11 0	3	♏	20	5	26	11	25	14 3 8	3	25	12	27	53	14	1
12 14 41	4	1	20	6	7	12	26	14 6 59	4	26	13	28	45	15	2
12 18 21	5	1	21	6	48	13	27	14 10 51	5	26	14	29	36	16	4
12 22 2	6	2	22	7	29	14	28	14 14 44	6	27	15	0 ♑	29	18	5
12 25 42	7	3	23	8	10	15	29	14 18 37	7	28	15	1	23	19	6
12 29 23	8	4	23	8	51	16	♓	14 22 31	8	29	16	2	18	20	8

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12 33 4	9	5	24	9	33	17	2	14 26 25	9	♐	17	3	14	22	9
12 36 45	10	6	25	10	15	18	3	14 30 20	10	1	18	4	11	23	10
12 40 26	11	6	25	10	57	19	4	14 34 16	11	2	19	5	9	25	11
12 44 8	12	7	26	11	40	20	5	14 38 13	12	2	20	6	7	26	13
12 47 50	13	8	27	12	22	21	6	14 42 10	13	3	20	7	6	28	14
12 51 32	14	9	28	13	4	22	7	14 46 8	14	4	21	8	6	29	15
12 55 14	15	10	28	13	47	23	9	14 50 7	15	5	22	9	8	♓	17
12 58 5	16	11	29	14	30	24	10	14 54 7	16	6	23	10	11	2	18
13 2 40	17	11	♐	15	14	25	11	14 58 7	17	7	24	11	15	4	19
13 6 23	18	12	1	15	59	26	12	15 2 8	18	8	25	12	20	6	21
13 10 7	19	13	1	16	44	27	13	15 6 9	19	9	26	13	27	8	22
13 13 51	20	14	2	17	29	28	15	15 10 12	20	9	27	14	35	9	23
13 17 35	21	15	3	18	14	29	16	15 14 15	21	10	27	15	43	11	24
13 21 20	22	16	4	19	0	♒	17	15 18 19	22	11	28	16	52	13	26
13 25 6	23	16	4	19	45	1	18	15 22 23	23	12	29	18	3	14	27
13 28 52	24	17	5	20	31	2	20	15 26 29	24	13	♑	19	16	16	28
13 32 38	25	18	6	21	18	4	21	15 30 35	25	14	1	20	32	17	29
13 36 25	26	19	7	22	6	5	22	15 34 41	26	15	2	21	48	19	♉
13 40 12	27	20	7	22	54	6	23	15 38 49	27	16	3	23	8	21	2
13 44 0	28	21	8	23	42	7	25	15 42 57	28	17	4	24	29	22	3
13 47 48	29	21	9	24	31	8	26	15 47 6	29	18	5	25	51	24	5
13 51 37	30	22	10	25	20	10	27	15 51 15	30	18	6	27	15	26	6
Sidereal	10	11	12	Ascen.		2	3	Sidereal	10	11	12	Ascen.		2	3

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Time.	♐	♐	♑	♑		♓	♉	Time.	♑	♑	♒	♈		♉	♊
H. M. S.	°	°	°	°	′	°	°	H. M. S.	°	°	°	°	′	°	°
15 51 15	0	18	6	27	15	26	6	18 0 0	0	18	13	0	0	17	11
15 55 25	1	19	7	28	42	28	7	18 4 22	1	20	14	2	39	19	13
15 59 36	2	20	8	0	♒ 11	♈	9	18 8 43	2	21	16	5	19	20	14
16 3 48	3	21	9	1	42	1	10	18 13 5	3	22	17	7	55	22	15
16 8 0	4	22	10	3	16	3	11	18 17 26	4	23	19	10	29	23	16
16 12 13	5	23	11	4	53	5	12	18 21 48	5	24	20	13	2	25	17
16 16 26	6	24	12	6	22	7	14	18 26 9	6	25	22	15	36	26	18
16 20 40	7	25	13	8	13	9	15	18 30 30	7	26	23	18	6	28	19
16 24 55	8	26	14	9	57	11	16	18 34 51	8	27	25	20	34	29	20
16 29 10	9	27	16	11	44	12	17	18 39 11	9	29	27	22	59	♊	21

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16	33	26	10	28	17	13	34	14	18	18	43	31	10	♒	28	25	22	1	22
16	37	42	11	29	18	15	26	16	20	18	47	51	11	1	♓	27	42	2	23
16	41	59	12	♑	19	17	20	18	21	18	52	11	12	2	2	29	58	4	24
16	46	16	13	1	20	19	18	20	22	18	56	31	13	3	3	2	♉ 13	5	25
16	50	34	14	2	21	21	22	21	23	19	0	50	14	4	5	4	24	6	26
16	54	52	15	3	22	23	29	23	25	19	5	8	15	6	7	6	30	8	27
16	59	10	16	4	24	25	36	25	26	19	9	26	16	7	9	8	36	9	28
17	3	29	17	5	25	27	46	27	27	19	13	44	17	8	10	10	40	10	29
17	7	49	18	6	26	30	0	28	28	19	18	1	18	9	12	12	39	11	♋
17	12	9	19	7	27	2	♓ 19	♉	29	19	22	18	19	10	14	14	35	12	1
17	16	29	20	8	29	4	40	2	♊	19	26	34	20	12	16	16	28	13	2
17	20	49	21	9	♒	7	2	3	1	19	30	50	21	13	18	18	17	14	3

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17	25	9	22	10	1	9	26	5	2	19	35	5	22	14	19	20	3	16	4
17	29	30	23	11	3	11	54	7	3	19	39	20	23	15	21	21	48	17	5
17	33	51	24	12	4	14	24	8	5	19	43	34	24	16	23	23	29	18	6
17	38	12	25	13	5	17	0	10	6	19	47	47	25	18	25	25	9	19	7
17	42	34	26	14	7	19	33	11	7	19	52	0	26	19	27	26	45	20	8
17	46	55	27	15	8	22	6	13	8	19	56	12	27	20	28	28	18	21	9
17	51	17	28	16	10	24	40	14	9	20	0	24	28	21	♈	29	49	22	10
17	55	38	29	17	11	27	23	16	10	20	4	35	29	23	2	1	♊ 19	23	11
18	0	0	30	18	13	30	0	17	11	20	8	45	30	24	4	2	45	24	12

Sidereal Time.	10 ♒	11 ♒	12 ♈	Ascen. ♊	2 ♊	3 ♋	Sidereal Time.	10 ♓	11 ♈	12 ♉	Ascen. ♋	2 ♋	3 ♌
H. M. S.	°	°	°	° ′	°	°	H. M. S.	°	°	°	° ′	°	°

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20	8 45	0	24	4	2	45	24	12	22	8 23	0	3	20	4	38	20	8
20	12 54	1	25	6	4	9	25	12	22	12 12	1	4	21	5	28	21	8
20	17 3	2	27	7	5	32	26	13	22	16 0	2	6	23	6	17	22	9
20	21 11	3	28	9	6	53	27	14	22	19 48	3	7	24	7	5	23	10
20	25 19	4	29	11	8	12	28	15	22	23 35	4	8	25	7	53	23	11
20	29 26	5	♓	13	9	27	29	16	22	27 22	5	9	26	8	42	24	12
20	33 31	6	2	14	10	43	♋	17	22	31 8	6	10	28	9	29	25	13
20	37 37	7	3	16	11	58	1	18	22	34 54	7	12	29	10	16	26	14

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20	41	41	8	4	18	13	9	2	19	22	38	40	8	13	♊	11	2	26	14
20	45	45	9	6	19	14	18	3	20	22	42	25	9	14	1	11	47	27	15
20	49	48	10	7	21	15	25	3	21	22	46	9	10	15	2	12	31	28	16
20	53	51	11	8	23	16	32	4	21	22	49	53	11	17	3	13	16	29	17
20	57	52	12	9	24	17	39	5	22	22	53	37	12	18	4	14	1	29	18
21	1	53	13	11	26	18	44	6	23	22	57	20	13	19	5	14	45	♌	19
21	5	53	14	12	28	19	48	7	24	23	1	3	14	20	6	15	28	1	19
21	9	53	15	13	29	20	51	8	25	23	4	46	15	21	7	16	11	2	20

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21	13	52	16	15	♉	21	53	9	26	23	8	28	16	23	8	16	54	2	21
21	17	50	17	16	2	22	53	10	27	23	12	10	17	24	9	17	57	3	22
21	21	47	18	17	4	23	52	10	28	23	15	22	18	25	10	18	20	4	23
21	25	44	19	19	5	24	51	11	28	23	19	34	19	26	11	19	3	5	24
21	29	40	20	20	7	25	48	12	29	23	23	15	20	27	12	19	45	5	24
21	33	35	21	22	8	26	44	13	♌	23	26	56	21	29	13	20	26	6	25
21	37	29	22	23	10	27	40	14	1	23	30	37	22	♉	14	21	8	7	26
21	41	23	23	24	11	28	34	15	2	23	34	18	23	1	15	21	50	7	27

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21	45	16	24	25	13	29	29	15	3	23	37	58	24	2	16	22	31	8	28
21	49	9	25	26	14	0	♋ 22	16	4	23	41	39	25	3	17	23	12	9	28
21	53	1	26	28	15	1	15	17	4	23	45	19	26	4	18	23	53	9	29
21	56	52	27	29	16	2	7	18	5	23	49	0	27	5	19	24	33	10	♍
22	0	43	28	♈	18	2	57	19	6	23	52	40	22	6	20	25	15	11	1
22	4	33	29	2	19	3	48	19	7	23	56	20	29	8	21	25	56	12	2
22	8	23	30	3	20	4	38	20	8	24	0	0	30	9	22	26	36	12	3

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If I wished to know what particular part of the Zodiac one is subject to in any particular year of life—that is to say, what part of the Zodiac is rising—I add 1 degree for every year to the Midheaven at birth and thus obtain a new Midheaven, under which, in the Tables of Houses, I find the Ascendant which rules the year. Thus in the case of one born on the 1st of May at 3.30 p.m. the 30th year comes under the Midheaven of Leo

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2, which is 30 degrees further advanced than Cancer 2, and under Leo 2 in the 10th House I find the Ascendant to be in Libra 24.7, which is the Ascendant governing that year of life. The meaning and importance of these calculations will appear at a later stage of this exposition.

When a degree is on the Midheaven or the 10th House it is said to "culminate," and when on the horizon Eastward it is said to "ascend."

The Midheaven is often called the "M.C." (Medium Coeli), and the opposite point is called the "I.C." (Imaum Coeli). They are the points of the Ecliptic which cut through the meridian of a place at any given time.

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CHAPTER IV

PLANETARY TRANSITS

In order that prognostications made from the horoscope of birth may be pointed as to time it is necessary to know the positions of the planets for several years in advance. Such calculations are easily effected by a knowledge of the periods of the planets—that is to say, the times in which they return to the same positions about the same time of the year. Thus Uranus returns to its place after a period of 84 years, Saturn does so after 59 years, Jupiter in 83 years, Mars in 79 years, in all cases almost to the day. Mercury also returns in 79 years. But as very few people possess records of the planets' places for these long periods, the following table of the longitudes of the planets for the next 12 years has been prepared. The positions are given for the 1st of each month, and the longitudes held by the planets are given in even degrees.

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These tables are very useful in tracing the transits that occur in connection with the horoscope for the year. Thus we have found that by adding the number of degrees corresponding to the age of a person to the Midheaven at birth, we obtain the Progressed Midheaven,[Pg 44] and in the Tables of Houses we may also find the corresponding Progressed Ascendant. By adding the same number of degrees to the place of the Sun at birth we obtain also the Progressed position of the Sun.

Month.	1905.					1906.				
	♆	☿	♄	♃	♂	♆	☿	♄	♃	♂
January	♋ 6	♑ 0	♒ 19	♈ 21	♎ 24	♋ 9	♑ 5	♒ 29	♉ 27	♓ 4
February	5	2	22	24	♏ 10	8	6	♓ 3	27	27
March	4	3	26	29	20	7	8	6	29	♈ 18
April	5	4	29	♉ 5	26	8	8	10	♊ 4	♉ 11
May	6	4	♓ 1	12	19	9	8	13	10	♊ 2
June	7	3	3	20	10	10	7	14	17	23
July	8	2	2	26	11	11	6	15	24	♋ 13

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August	9	0	1	♊	2	21	12	5	14	♋	0	♌ 3
September	9	0	♒	29	6	♐ 6	12	4	12		6	23
October	10	0	27		6	25	13	4	9		10	♍ 12
November	10	1	26		4	♑ 17	13	5	8		11	♎ 1
December	9	3	27		0	♒ 11	12	7	8		9	20

Month.	1907.					1908.				
	♆	♅	♄	♃	♂	♆	♅	♄	♃	♂
January	♋ 11	♑ 9	♓ 9	♋ 5	♏ 11	♋ 13	♑ 13	♓ 22	♌ 12	♓ 24
February	10	10	14	2	29	12	14	25	8	♈ 16
March	9	12	17	1	♐ 15	11	16	28	5	♉ 5
April	10	12	21	3	♑ 2	12	17	♈ 2	4	26
May	11	12	24	7	13	13	17	5	5	♊ 16

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June	12	12	26	13	18	14	16	8	9 ♋	7
July	13	11	27	19	13	15	15	10	14	26
August	14	9	27	26	6	16	14	10	21 ♌	16
September	14	8	25 ♌	3	11	16	13	8	28 ♍	5
October	15	8	23	8	24	17	13	6 ♍	4	24
November	15	9	21	12 ♒	13	17	13	4	9 ♎	14
December	14	11	21	14 ♓	2	16	14	3	13 ♏	4

Month.	**1909.**					**1910.**				
	♆	☿	♄	♃	♂	♆	☿	♄	♃	♂
January	♋ 15	♑ 16	♈ 4	♍ 14	♏ 24	♋ 17	♑ 20	♈ 16	♎ 13	♈ 18
February	14	18	6	13	♐ 15	16	22	18	14	♉ 5
March	13	20	9	9	♑ 4	15	24	21	13	22

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April	14	21	13	6	24	16	25	24	9 ♊	11
May	15	21	17	4 ♒	14	17	25	28	6 ♋	0
June	16	20	20	6 ♓	4	18	25 ♉	1	4	19
July	17	19	22	9	22	19	24	4	6 ♌	8
August	18	18	23	15 ♈	4	20	22	6	9	27
September	18	17	22	21	3	20	21	6	15 ♍	17
October	19	17	20	28 ♓	26	21	21	4	21 ♎	6
November	19	17	18 ♎	4	25	21	22	2	28	27
December	18	19	16	9 ♈	4	20	23	0 ♏	4 ♏	17

Month.	**1911.**					**1912.**				
	♆	♅	♄	♃	♂	♆	♅	♄	♃	♂
January	♋ 20	♑ 24	♈ 29	♏ 9	♐ 8	♋ 22	♑ 28	♉ 13	♐ 5	♉ 24

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February	20	26	♉	0	13	♑	1	21	♒	0	13	10	♊	1
March	19	28		2	14		22	20		1	15	14		12
April	20	29		6	13	♒	14	21		3	18	15		29
May	20	29		10	9	♓	7	22		3	22	14	♋	14
June	21	29		14	6	♈	0	23		3	26	10	♌	2
July	22	28		17	5		21	24		2	29	7		20
August	23	27		19	6	♉	12	25		1	♊	2	5	♍	10
September	23	26		20	10		29	25		0	4	7		29
October	24	25		19	15	♊	9	26	♑	29	3	10	♎	19
November	24	25		17	22		9	26		29	2	16	♍	10
December	23	27		14	28	♉	28	25	♒	0	♉	29	23	♐	1

Month.	**1913.**	**1914.**

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	♆	♅	♄	♃	♂	♆	♅	♄	♃	♂
January	♋ 24	♒ 3	♉ 27	♑ 0	♐ 23	♋ 26	♒ 7	♊ 12	♑ 25	♋ 16
February	24	4	27	6	♑ 17	25	8	11	♒ 3	7
March	23	5	28	12	♒ 8	24	9	11	9	8
April	24	7	♊ 0	16	♓ 2	25	11	13	15	17
May	24	7	4	18	25	26	11	16	20	♌ 1
June	25	7	8	17	♈ 18	27	11	20	22	17
July	26	6	12	13	♉ 10	28	10	24	22	♍ 3
August	27	5	15	10	♊ 2	29	9	28	19	22
September	27	4	17	8	21	♌ 0	8	♋ 0	15	♎ 12
October	28	3	18	9	♋ 9	0	7	2	13	♍ 1
November	28	3	17	13	21	0	7	2	13	23

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December	27	4	15	18	24	♋ 29	8	0	17	♐ 15	

Month.	1915.					1916.				
	♆	♅	♄	♃	♂	♆	♅	♄	♃	♂
January	♋ 28	♒ 10	♊ 27	♒ 23	♑ 8	♌ 1	♒ 14	♋ 13	♓ 23	♏ 1
February	28	12	26	29	♒ 2	0	15	10	28	♌ 23
March	27	13	25	♓ 6	25	♋ 29	17	9	♈ 4	13
April	28	15	26	14	♓ 16	♌ 0	18	10	12	13
May	28	15	29	20	♈ 12	1	19	11	19	20
June	29	14	♋ 3	25	♉ 6	2	19	15	26	♏ 2
July	♌ 0	13	6	28	27	3	19	19	♉ 1	17
August	1	12	10	28	♊ 19	4	18	23	5	♎ 6
September	1	11	13	26	♋ 9	4	17	26	6	25

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October	2	11	15	22	27	5	16	29	3 ♏	16
November	2	12	16	19	♌ 14	5	16	♌ 0	♈ 29	♐ 8
December	1	12	15	19	25	4	16	0	26 ♑	0

Now a transit of one of the major planets over any of these points, namely, the Midheaven or Ascendant at birth, the Sun or Moon at birth, the Midheaven, Ascendant, and Sun in the progress, will produce marked effects on the fortunes and health of the Subject, corresponding to the nature of the planet which makes the transit.

Thus we have seen that the Midheaven at the birth on the 1st of May, 1890, at 3.30 p.m., was Cancer 2 degrees, and the Ascendant Libra 2. Referring to the Tables, we find that in 1905 Saturn will form the opposition of the Midheaven in Capricornus 2 in February, July, and November, so that these will be periods of reversal, sudden and unexpected complications and changes. Also the Sun at birth being in Taurus 11 receives the transit of Jupiter in April, 1905, so that this month will be productive of some amelioration of evils, or direct benefits.

When two or more planets concur in a transit of any of the Significators the results are so much the more forcible and effective.

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CHAPTER V

TABLE OF ECLIPSES

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The following Table of the Eclipses that will take place during the next twelve years will be found of considerable use in forecasting the effects which will follow, not only on the individual, but also on nations and countries. Thus should any of the Eclipses fall on the place of a Significator in a horoscope, it will have the most sinister effect upon the life and fortunes. Certain countries are ruled by certain signs, a matter which has been determined from observation ever since the days of Claudius Ptolemy A.D. 130, and Eclipses falling therein have the effect of disturbing the government of those countries, producing effects of the worst kind. (See Sect. IV., chap. 6).

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TABLE OF ECLIPSES, 1905–1916.

1905.—18th February, Moon eclipsed in Leo 29.
5th March, Sun eclipsed in Pisces 14.
14th August, Moon eclipsed in Aquarius 21.
30th August, Sun eclipsed in Virgo 6.

1906.—8th February, Moon eclipsed in Leo 19.
22nd February, Sun eclipsed in Pisces 3.
20th July, Sun eclipsed in Cancer 27.
3rd August, Moon eclipsed in Aquarius 10.
18th August, Sun eclipsed in Leo 24.
14th January, Sun eclipsed in Capricornus 23.

1907.—28th January, Moon eclipsed in Aquarius 7.
9th July, Sun eclipsed in Cancer 16.
23rd July, Moon eclipsed in Leo 4.

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1908.—3rd January, Sun eclipsed in Capricornus 12.
28th August, Sun eclipsed in Virgo 4.
7th December, Moon eclipsed in Gemini 14.
22nd December, Sun eclipsed in Sagittarius 30.

1909.—3rd June, Moon eclipsed in Sagittarius 12.
17th June, Sun eclipsed in Gemini 25.
26th November, Moon eclipsed in Gemini 3.
12th December, Sun eclipsed in Sagittarius 19.

1910.—9th May, Sun eclipsed in Taurus 18.
22nd May, Moon eclipsed in Sagittarius 0.
1st November, Sun eclipsed in Scorpio 7.
15th November, Moon eclipsed in Taurus 21.

1911.—28th April, Sun eclipsed in Taurus 7.
20th October, Sun eclipsed in Libra 26.

1912.—1st April, Moon eclipsed in Libra 11.
16th April, Sun eclipsed in Aries 25.
25th September, Moon eclipsed in Aries 1.
10th October, Sun eclipsed in Libra 16.

1913.—21st March, Moon eclipsed in Virgo 30.
5th April, Sun eclipsed in Aries 15.
30th August, Sun eclipsed in Virgo 7.
14th September, Moon eclipsed in Virgo 20.
28th September, Sun eclipsed in Libra 4.

1914.—24th February, Sun eclipsed in Pisces 5.
9th March, Moon eclipsed in Virgo 18.

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21st August, Moon eclipsed in Aquarius 27.

3rd September, Sun eclipsed in Virgo 10.

1915.—13th February, Sun eclipsed in Aquarius 24.

9th August, Sun eclipsed in Leo 16.

1916.—18th January, Moon eclipsed in Cancer 27.

3rd February, Sun eclipsed in Aquarius 13.

14th July, Moon eclipsed in Capricornus 21.

29th July, Sun eclipsed in Leo 5.

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In illustration of the effects of Eclipses in the horoscope of birth, we may refer to the horoscope of His Majesty King Edward VII., wherein we find the sun situated in the 17th degree of the sign Scorpio, which rules the excretory system. In May, 1902, there was an Eclipse of the Sun in opposition to this position, and within five weeks of the Eclipse the King was struck down with appendicitis on the eve of the Coronation Ceremony. This was foretold in many of the journals devoted to the exposition of Astrology, and in Moore's Almanac for the month of June, 1902, the hieroglyphic clearly pointed to the danger that beset the august Sovereign. Indeed, I was able to say with perfect assurance that the Coronation would not take place on the date appointed, and gave the exact date at which the King would be struck down with what I conceived to be a mortal illness. But fortunately at that time the Moon was conjoined to Jupiter in the progress and this saved the life. The Moon was then setting in the horoscope of birth, according to the measure of time already given, namely,[Pg 50] one degree of Right Ascension for one year of life, and Saturn was on the Midheaven.

The Eclipse of June 6, 1853, was in the Midheaven at Cumana on the Spanish Main and in five weeks there followed a terrible earthquake which killed 4,000 people and destroyed all the property. In May, 1901, there was an Eclipse on the 8th of May which

fell in the meridian of St. Pierre, Martinique, and the same day there was a fearful devastation of the place by the eruption of Mont Pelée.

Instances might be multiplied to show that the effects of Eclipses are of the most striking and effective nature.

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SECTION III

HOW TO READ THE HOROSCOPE

CHAPTER I

THE PLANETS IN THE HOUSES

It is impossible to categorically state the effects which are due to the positions of the planets in the several Houses, because very much depends upon the signs they are in and the aspects they have from other planets.

The means of judging the effects is very simple, when once the natures of the planets and the dominion of the several Houses have been thoroughly digested. Thus, it is first necessary to see in what House a planet is situated. Then consider the nature of the planet in the following concrete manner:

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Neptune means chaos, confusion, deception.
Uranus, eccentricity, originality, estrangement.
Saturn, privation, hindrance, denial.
Jupiter, affluence, fruitfulness, increase.
Sun, dignities, honours.
Mars, excess, impulse, quarrels.
Venus, peace, happiness, agreement[Pg 52] Mercury, commerce, versatility, adaptability.
Moon, changes, publicity.

Now look to the things that are governed by the House in which any particular planet is situated at the moment of birth (Sect. I., chap. iii.).

Suppose Saturn to be found in the 11th House. Saturn is "privation" and the 11th House is the domain of "Friends." Hence a paucity of friends, or such as there may be are evil or unfortunate to the subject. Jupiter in the 2nd House, in the same manner, would signify "increase" of "money and possessions." Mars in the 7th would indicate "quarrels" with "partners"; and so on. Each planet reflects its own nature upon the affairs governed by the House in which it is found at the moment of birth.

It will not infrequently happen, however, that there are more than one planet in the same House. Suppose two planets to occupy the same House. In such case one may be good (Jupiter), and the other evil (Mars). It is then necessary to take first that which first comes to the horizon or Midheaven, that is to say, the one which is in the earlier part of the House, and next that which follows. Thus Saturn followed by Jupiter in the 11th House, would signify misfortune by means of advisers and friends, followed at a later period in the life by some great good through the same source. The degrees which separate the planets will indicate the years which elapse between these changes of fortune. Similarly if there be more than two planets in the same House; in such cases

you may safely predict many changes in that department of life which the House is said to rule.

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But the fact of a planet being in a House is not of itself sufficient evidence from which to make a judgment. The aspects which that planet has must also be considered, for in this matter Saturn when throwing a good aspect to any of the Significators—the Sun, Moon, Ascendant or Midheaven, and well aspected by other planets, is to be preferred to Jupiter when the latter is badly placed and aspected; for Jupiter has his own ill effects, and Saturn has his good influences. Jupiter is only a benefic when acting by conjunction or good aspect with another planet, and Saturn is only a malefic when acting by conjunction or evil aspect.

These things being duly considered, it is possible to arrive, with even brief experience, at the results that are signified by the planets in the several Houses.

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CHAPTER II

THE CONSTITUTION

The Sun is the chief significator of the constitution, and the aspects he holds to the other planets are to be considered. Thus if he be found in good aspect, or at least not in evil aspect, to the other planets, the constitution may be judged as sound.

When, however, the Sun is afflicted by some planets and assisted by others, there will be only a moderate constitution, and judgment has to be made as to which influence predominates, the good or evil. When the afflicting planets are angular—that is to say,

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in the 1st, 4th, 7th, or 10th Houses—the congenital or hereditary tendency to organic disease is by that circumstance so much the stronger. But when the assisting planets are angular, the predisposition to disease is considerably mitigated, and in most cases entirely overcome.

The predisposition of the body to affections of a constitutional nature is to be judged from the prevalence of evil aspects to the Sun, and the parts of the body liable to be affected are judged from the Signs which are occupied by the afflicting bodies.

The various affections due to the several planets have already been cited (Sect. I., chap. i.). The Signs are grouped for purposes of pathological study as follows:—

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The Movable Signs—Aries, Cancer, Libra, and Capricornus—have relation to the head, stomach, skin, kidneys, liver, and spine.

The Fixed Signs—Taurus, Leo, Scorpio, and Aquarius—are related to the throat, heart, blood, and excretory system.

The Common Signs—Gemini, Virgo, Sagittarius, and Pisces—are related to the lungs, bowels, and nervous system.

It will also be advisable to read Sect. I., chap. ii., in order to determine the special points liable to affections, the nature of the affection being judged solely by the planet which casts the malefic aspect to the Sun.

When the Sun is found to be afflicted by several planets, and at the same time there is no assistance from the good aspects or conjunctions of other bodies, then the constitution is deemed faulty and liable to early disruption. But when there are several planets afflicting and at the same time some benefic influences from others, it is probable that there will be prolonged disease and physical weakness, though life will continue.

Death in infancy occurs when the malefic planets are immediately rising or culminating at the birth in evil aspect to the luminary which at the time may be above the horizon. Also when there are malefic planets immediately setting or passing the nadir, in evil aspect to the luminary below the horizon. But when there are mitigating influences from the good aspects of the benefic planets, or the luminaries, the malefic planets will not induce death, but there will be great difficulty in rearing.

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CHAPTER III

HEALTH AND SICKNESS

The aspects of the moon are the chief consideration in the matter of sickness. If the Moon be found to be afflicted by the evil aspects of several planets, and no assistance be given by the good aspects of others, then the health will be precarious and frequent spells of illness will result. The Moon being well aspected and not in any way afflicted, shows that the health will be well established, and that there will be immunity from sickness of all sorts.

The considerations necessary to be made in this matter are similar to those which have been cited in regard to the Sun and the constitution, except that we substitute the Moon for the Sun. For, whereas the Sun governs the vital power in man, the Moon governs the functional powers, and whereas the Sun denotes those affections which are congenital or hereditary, the Moon denotes such as are brought about by causes after birth. Similarly, the Sun denotes affections which are incidental to the body, while the Moon denotes such as are accidental thereto.

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These points being borne in mind, they may be memorised at sight:—

SUN.	MOON.
Organic.	Functional.
Hereditary.	Acquired.
Incidental.	Accidental.

But it should be observed that the constitution may be strong and the health may be at the same time very bad, or, on the other hand, the health may be good and the constitution may be weak. In the first case, there would be a long life of considerable suffering from ill-health; and in the second case, there would be little or no ill-health for some considerable time, but the constitution would give way and the vital powers become depleted by the first serious illness that occurred.

Only when the Sun and Moon are both unafflicted by evil aspects or conjunctions, the health and constitution are both good, and there is every indication of a robust and vigorous life reaching to a ripe old age.

When the Sun and Moon are both heavily afflicted, and there is no assistance given by good aspects, there is every probability of death in infancy, or before reaching maturity.

For reasons which are allied to the connection existing between the constitution and the health, the good aspect of the Moon to the Sun at birth is an excellent augury, for it indicates co-ordination between the organic and functional. Where this co-ordination exists there is always considerable power of recuperation, so that illness is easily overcome and the balance of power restored in the system.

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Malefic planets rising and afflicting either the Sun or Moon indicate prolonged ill-health, and most frequently some permanent hurt to the body.

When predisposition to illness is shown in the horoscope, the particular affection can be determined by the Sign which the afflicting planets hold. Thus if Saturn afflict the Moon from Aries, you will judge some hurts and obstructions in the head, chills and colds, influenza, coryza, &c. Similarly Mars in Leo would indicate functional defects of the heart due to accelerated action and overstrain, such as result from fevers.

A good aspect of the planets Jupiter and Venus is of material help in counteracting the influence of malefic aspects or evil positions.

Thus it will be seen that the health may be judged entirely apart from the constitution, the planets which are in aspect to the Moon being of first consideration, and next those which may be rising at the time of birth.

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CHAPTER IV

HOW TO READ CHARACTER AND DISPOSITION

Ptolemy says: “Mercury is the ruler of the rational soul, the Moon of the animal soul.” By this he would mean, no doubt, that Mercury has relation to the faculty of the mind, while the Moon is related to brain function. There are certain attributes of the mind which are distinctive of the human being, and certain other qualities which are common to man and the lower animals. These latter are under the dominion of the Moon, while Mercury has chief signification of the rational faculties.

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The position and aspects of the Moon and Mercury are therefore to be considered in making judgment of the mental endowments and disposition of the subject.

Planets that are in conjunction or aspect to either the Moon or Mercury will impress their nature strongly on the character and disposition. The natures of the planets have already been recited (Sect. I., chap. i.), and it is therefore only necessary to consider further, in this connection, the nature of the aspect that is thrown to the Mental Significators by the other bodies. Thus the Sun being in trine to the Moon will give a proper degree[Pg 60] of independence and dignity, while the square aspect or opposition of the Sun would indicate an excess of pride, harmful to the subject in his ordinary relationships. In the same manner, the good aspect of Jupiter would show benevolence and regulated philanthropy, while the opposition or other evil aspect of the same body would indicate extravagance and ostentatious display of charity.

The good and bad aspects of the planets may be summed up in a few lines as follows:—

In Good Aspect.	In Evil Aspect.
Neptune—Genius, inspiration.	Insanity, obsession.
Uranus—Originality, invention.	Obstinacy, eccentricity.
Saturn—Steadfastness, fidelity.	Deceitfulness, suspicion.
Jupiter—Benevolence, joviality.	Ostentation, profligacy.
Mars—Energy, executiveness.	Impulse, destructiveness.
Sun—Dignity, independence.	Vanity, egotism.

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Venus—Affability, art.	Self-indulgence, disorderliness.
Mercury—Alertness, ingenuity.	Inquisitiveness, meddling.
Moon—Grace, idealism.	Inconstancy, awkwardness.

The general trend of the disposition and habit of mind is judged by the position of the majority of the planets, according to the "Constitution" of the Signs they occupy. Thus, the majority of the planets being in—

Cardinal or Movable Signs indicates executive ability, business aptitude, pioneer spirit, ambition, capability to cut out a line in life for oneself, and to make headway against difficulties. Such persons are usually the foremost in their particular sphere of life, and are always found in the most progressive movements, reforms, &c.

Fixed Signs—Stability, patience, endurance, method, caution, and diplomacy. Such persons are apt to[Pg 61] become the originators of schools of thought, policies, and schemes. They have fixity of purpose, determination, independence, and pivotal stability. They sit still and the world revolves around them.

Flexed or Common Signs—Versatility, flexibility, suavity, adaptability, and lack of originality. Such people usually have too many irons in the fire, and take in hand more than they can bring to satisfactory conclusion. This is due to their versatility. They have a superficial knowledge of many things, but lack the persistence to bring that knowledge to practical effect. At the same time their adaptability is the occasion of many successes in life, and their agreeableness, sympathy, and suavity create many friends for them.

In the Wheel of Life the cardinal signs denote the rim or tyre which is ever on the move, having the greatest acceleration. The Common Signs represent the spokes of the wheel, uniting the tyre to the nave, and in that sense representing the power of adaptability.

The Fixed Signs represent the nave, which remains quiescent and still, being useful by that pivotal stability and apparent non-entity.

Thus, while the Sign-groupings of the planets are useful in giving the keynote of the nature and disposition, the particular faculties and characteristics are to be judged only from the aspects of the planets to the Moon and Mercury. Further, it will be noted that those planets which occupy the 3rd and 9th Houses, and those also which are just rising at the moment of birth, will strongly impress themselves on the nature, apart from any aspects they may hold to the Mental Rulers. This is on account of the natural relationship of those Houses to the mind and its means of expression.

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Due attention must be paid to the position and aspects of those planets which are in aspect to the Mental Rulers, for if they be badly placed, in uncongenial signs, and themselves badly aspected by other planets, they will not act with the same directness and force as they otherwise would do.

It is of course admitted, in all astrological inquiries, that the effects of heredity, training and association count for something. A man who is generated from a vitiated parentage, badly nourished and imperfectly trained, cannot be expected, even with the best aspects, to manifest the highest faculties in their fullest or most perfect expressions. I have not the slightest doubt that many a clodpole was born under similar aspects to those which obtained at the birth of Shakespeare, Raphael, Newton, or Cæsar. I am not dismayed. *Non gli astri muovono solamente per Roma!* Who shall tell the tale of the world's starved, neglected, and submerged genius? We are doing the right thing, at all events, in keeping the school-door wide open.

But to continue. The inspirational and ardent temperament is indicated by the majority of planets being in Fiery signs. The mental or intellectual temperament is shown by the majority in Aerial signs. The psychic or emotional temperament by the majority in

Watery signs, and the practical or sordid temperament by the majority being in Earthy signs.

The rising sign at birth often impresses itself strongly on the mind of the Subject, and its characteristics are those which belong to the planet which governs it, and the "elemental" nature of the sign itself.

Thus you have the chief keys to the estimate of[Pg 63] character in the individual, and when once the student is convinced by experience of the paramount reliability of this method of character-delineation, its uses will need no special pointing.

Mental and Brain Disorders.

When either the Moon or Mercury is afflicted by the malefic planets, that is to say, when Neptune, Uranus, Saturn, or Mars are in conjunction or evil aspect with the mental Significators, and there be no relieving aspect from the benefic planets, Jupiter, Venus, or the Sun, then there is every predisposition to affections of the brain and nervous system. This is the more to be feared when the Moon or Mercury is afflicted in the flexed or common signs. This observation has been scientifically established by Mr. A. G. Trent, in his little work entitled "The Soul and the Stars," to which the student is referred for a mass of statistical evidence.

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CHAPTER V

FINANCIAL PROSPECTS

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Look to the planets which are in the 2nd House, and the aspects to them. If any planet be therein, and well aspected by others, the financial condition will be competent. If a benefic (Jupiter or Venus) be therein, and free from evil aspects, the same effect will accrue. But if the benefic in the 2nd should have good aspects from other planets, then there will be considerable wealth.

Any planet in the 2nd House, badly aspected, will produce difficulty in acquiring money, and if it be a malefic planet which occupies the 2nd House under these conditions, there will be times of stress and even poverty.

Continual hardship and poverty is shown by malefic planets in the 2nd House, in evil aspect to the Moon or Sun; while at the same time the planets in the 2nd House will be severely afflicted by others.

Saturn in the Midheaven afflicting the Sun or Moon is an indication of reversal of fortune, and such persons usually attain considerable position in the world and are then depleted of everything.

Jupiter or Venus in the 10th House, and near the[Pg 65] meridian, are signs of good fortune and success in life, and the same results are due to their rising at birth.

In a general manner the aspects to the Moon in a male horoscope or the Sun in a female horoscope should be consulted, and the planets in good aspect thereto will show the means of good fortune, while those in evil aspect will indicate the sources of loss and hurt, according to the Houses the afflicting or assisting planets occupy. Thus Jupiter in good aspect to the Moon from the 11th House shows gain by friends, advisers, and co-operative measures, because the 11th House rules these relationships and Jupiter is the index of increase. Similarly, Uranus in the 7th House would show gain by the marriage partner if in good aspect to the Moon, or loss thereby if in evil aspect.

Mars in the 2nd House shows good earning capacity, because Mars is an ambitious and industrious planet (*i.e.*, it produces such effects in the person), and the 2nd House is the

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domain of finance. But at the same time it shows extravagance and inability to save money, for Mars is impulsive and lacking thrift.

The 6th House well occupied shows faithful and advantageous servants and employés, such as will augment the fortunes and do good work for the Subject.

Neptune in the 2nd shows complications and an involved state of finance, and frequently it shows loss by fraud and imposition; though in good aspect to other planets it shows gain by such nefarious means. Uranus indicates many ups and downs of fortune, sudden and unexpected rises and falls.

Thus each planet is judged according to its nature and the aspect it throws to the Moon or Sun, while the[Pg 66] planets in the 2nd House are judged by their own natures and the aspects which they receive.

Inheritance is shown by a benefic planet in the 5th or 11th House in good aspect to Saturn; but indirect inheritance can be the result of Saturn in good aspect to Jupiter from any part of the figure.

Legacies are shown by good planets, or planets well aspected, in the 8th House; or by Jupiter in good aspect to Uranus from any part of the heavens.

Gain by marriage is shown by benefic planets in the 8th House, because the 8th is 2nd from the 7th, and the 7th House rules over the partner.

The potential of each horoscope is capable of being increased by due attention to the sources of gain, as shown by the position and aspects of the planets in various parts of the heavens; but chiefly by associating oneself with persons whose horoscopes are in harmony with one's own. Thus it happens that individuals are lifted to position and affluence through their association with persons whose horoscopes are in sympathy with theirs. (See Chap. XI. of this Section.)

The Sun and Moon being in good aspect to one another will prevent disaster, or will always provide a means of restoration of fortunes, because it is an index of general good

fortune and continual support. Such persons as have this aspect in their horoscopes need never fear misfortune, for if they should fall into disasters in one place, they will always turn up in another with a complete adjustment of their position. But when the Sun and Moon are in evil aspect, and particularly when the malefic planets are in elevation in the heavens, continual misfortune dogs the footsteps, and though there[Pg 67] be spells of good fortune, they are brief and attended with troubles.

The benefic planets, Jupiter, Venus, and Sun, being well elevated in the heavens, that is to say, in the 10th or 11th Houses, it is a sign of preponderating good fortune. But when the malefics are in elevation the reverse results happen.

The Line of Least Resistance.

It is a law in Nature that the line of least resistance is that of greatest progress. The lightning flash does not come straight to earth, but zigzag by the line of least resistance. The great rivers do not come by a direct course to the ocean, but by many turns and backward reaches, because they follow the path of least resistance. When one comes to take account of the years of human life that are spent in the vain endeavour to achieve the impossible, the lessons of Nature are worth reciting. But what is impossible to one man is facile to another, and the greatest economy of effort is therefore to be secured by proper regard to suitability of occupation and direction of effort.

The principles of Astrology enable us to determine the line of action which at all times will be the most fruitful of results, and in the matter of money-making the matter is decided in the following manner: That planet which has a trine or sextile aspect of the Moon, and is at the same time elevated above the malefic planets, especially if it be itself assisted by the good aspects of other planets, receives first consideration. The House it is in will indicate the source of benefit, but the Sign it is in will show the means through which it will come. Thus if[Pg 68] Uranus should be in the Midheaven, in trine aspect to the Moon, and itself receiving a good aspect from either the Sun, Jupiter, or

Venus, it will indicate gain through governmental bodies, authorities, and persons of high rank. If Uranus should be in the sign Cancer, it would point to matters associated with the ocean, marine affairs, or those in which water is the element in chief employ; as in marine engineering, shipping, dock building, &c. But if Uranus had been in the 11th House, and in the sign Scorpio, then the source of gain would be by means of companies, syndicates, and associations of a collective nature, and the sign Scorpio would show it to be connected with naval defence (because Scorpio is a martial and watery sign) or the utilisation of waste materials, inflammable oils, &c., or by systems of drainage, which represent the excretory system of a town. By looking chiefly to the nature of the planet concerned, and that of the sign it occupies, a good artist will readily describe the particular line which is to be pursued.

But here, as in every other matter upon which judgment is made, attention must be paid to the character and disposition of the Subject, his aptitudes and qualifications, for it is obviously of little use recommending literature or the law to one whose sole capabilities lie in unintellectual directions. Natural aptitude, supplemented by the necessary training, are the first considerations, for without these success in any direction is but ill assured.

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CHAPTER VI

THE POSITION IN LIFE

This is to be judged from the position of the majority of the planets, but principally from the Midheaven, the planets therein and its aspects. Thus, if you find the majority of the

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planets rising, that is to say, in the 10th, 11th, 12th, 1st, 2nd, and 3rd Houses the Subject will be a candidate for responsibility, ambitious of honours and position, and generally independent. If these or the majority of them be well aspected he will become a man of position, employing others; or, if a woman, will hold an important position in her sphere of life, and be esteemed in the social world.

If the degree on the Midheaven receives good aspects from the major planets, the position will be honourable and secure.

Venus or Jupiter, or the Sun well aspected, in the Midheaven, denotes a superior position, honours, and distinction. The same will result if these be rising.

When the majority of the planets are above the horizon, even though they be not rising, the Subject will have responsibilities thrust upon him, even though he should not desire them. If the majority of these[Pg 70] planets be well aspected, he will acquit himself creditably and attain to honours.

It is always fortunate for the position that there should be planets exactly on the cusps of either the 2nd, 3rd, 6th, 8th, or 12th Houses, for then there will be every opportunity of securing fame and advancement in life.

But when any of the malefic planets are found exactly on or nearest to the meridian, whether above or below the horizon, there will be loss of position, reversal, a sinister fame, or disgrace.

The 10th House represents the fame and honour of a person, and the 4th House represents the end of life and that which militates against the fame and honour. Therefore when there are good planets in these places, the Subject will meet with rewards and honours commensurate with his efforts; but when evil planets occupy the meridian, he will at best sustain his position in life with great difficulty.

It is futile for any one to suppose that the position of a benefic planet in the meridian of the horoscope will bring him to fame and elevate him in the world irrespective of his

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own endeavours. The planets operate on human affairs in terms of human thought and action, and that by fixed laws; never adventitiously. That "the Gods help those who help themselves" to the extent that natural laws permit, is a truth which astrology fully provides for. Fitness and fortune are as cause and effect to one another in respect of planetary action in human life.

Many planets in cardinal signs will dispose a man to seek fame, and when the Midheaven of the horoscope is well aspected or there be fortunate planets therein, he[Pg 71] will attain it. Cardinal signs on the angles of the horoscope (the meridian and horizon), produce fame outlasting death. The same if either of the luminaries be exactly on the equinoxes.

Venus in the Midheaven gives social elevation and lifts a person above the sphere of birth. Good planets in the 11th show patronage.

But when the luminaries are heavily afflicted there will be an inconstant fortune and many reverses, so that position gained will be lost again.

Most of the planets under the horizon shows success and position in the latter part of life, while if they be between the 4th and 7th cusps, there will be advantages after marriage, or by means of partnerships.

In judging of the means by which the position will be sustained, respect must be had to the positions of those planets which are in good aspect to the Midheaven, or to benefic planets in the Midheaven, and if none be so situated, then those which hold benefic aspect to either the Sun or Moon at birth must be taken, and judgment made according to the nature of the planet and the sign it occupies. Preference should always be given to that planet which has the strongest aspect for good. Thus if two planets were in trine, that which is in elevation should be preferred, especially if it be strengthened by the good aspects of other planets.

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CHAPTER VII

THE CHOICE OF OCCUPATION

The enormous waste of force and time entailed by the experimental trip upon which most young men embark at the outset of their career in life, might be greatly reduced by a proper knowledge of individual aptitude in relation to circumstances. The average boy cannot readily make up his mind as to what occupation he will follow, because he does not know either enough of his own powers or of the world in which he is called upon to use them. Parents are in the same difficulty. They must needs wait to see how a boy will shape out. They study his inclinations to the best of their ability, but without coming to a definite conclusion any sooner than the boy himself. Given a fair education, such as may fit him for almost anything, but which specialises him for nothing in particular, he is put to some desk or bench and there left to his own resources. By a fortunate chance, he may find himself suited to his post. More frequently he is several years in finding out that he has missed his vocation, that his inclinations and his work are not in accord, that he has misapplied his energies for some time, and that he has made a false start. Fortu[Pg 73]nately circumstanced at birth he may have been equipped by higher education for some distinctive profession, to which he gains access after the payment of large fees or premiums. The man has a strong dramatic faculty and the stage claims him after all. Here is both waste of time and money. Astrology, as a reliable key to character and inclination, deserves some recognition on the grounds of social economy.

The inclinations of the Subject are judged from the position of the majority of the planets, for if they should be found in the aerial signs, Gemini, Libra, or Aquarius, the

inclination will be towards mental occupations, especially science and literature. In fiery signs there is a predisposition to a more robust and active life, such as is afforded by military service, travelling, prospecting, exploring, &c. In earthy signs the aptitude lies in the direction of agriculture, experimental science, surveying, dealing in real estate, broking, &c. In watery signs there is special inclination to pursuits connected with the water, such as sailors, watermen, and others; but frequently to other occupation in which fluids are predominant, such as publicans, wine and spirit merchants, chemists, and oil merchants.

Each sign has its special tendency, and the exact occupation can often be decided thereby, when regard is had to the planet in closest aspect to the Sun or Moon and the sign it occupies. Thus Aries denotes soldiers and pioneers of movements; Taurus shows dealers in real estate, house agents and brokers; Gemini, literary men and writers of all sorts; Cancer, sailors and publicans; Leo, actors and artists; Virgo, clothes dealers and sellers of confectionery and bread; Libra, valuers, assayers,[Pg 74] money-changers, and pawnbrokers; Scorpio, naval sailors, chemists, dealers in oils and spirits; Sagittarius, explorers, divines, lawyers; Capricornus, political agents and ministers of the State; Aquarius, electricians, company promoters, syndics, and scientific researchers; Pisces, dealers in fish and sea produce, warders, and those connected with places of confinement, such as prisons and hospitals.

Taking, therefore, the dominant planet and the signs that hold the majority of the planets, the line along which the Subject will make the most progress in the world and acquit himself most successfully, may be readily determined.

No person will make a good soldier who has not Mars as a dominant planet, nor will he succeed with the public if the Moon be not elevated and well aspected, nor become a successful artist, musician, or poet if Venus be not conspicuous in the horoscope.

Generally the inclination is derived from a consideration of the dominant planet, and the degree of success attendant upon the occupation is judged from the aspect which

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that planet throws to the Sun or Moon, and there can be no great advantage from following an inclination which does not promise some measure of success, as is the case when the dominant planet is in evil aspect to the luminaries. Thus it happens that some men follow unprofitable callings, their judgment being dominated by an inclination adverse to their natural welfare. Yet never was good work done in the world without a strong inclination and considerable enthusiasm, and Heaven makes its own slaves, its martyrs, and its scapegoats. And always, the following of an inclination means the[Pg 75] sacrifice of some of the benefits of life. "Take what thou wilt, but pay the price!" is the Divine mandate, according to Emerson.

But unquestionably, the science which enables a man to choose the line of least resistance, which prevents a youth of intellectual tendencies from wasting the best years of his life in drudgery at the desk or bench, is worth a little study. "Hitch your waggon to a star," is good advice if only we hitch it to the right one.

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CHAPTER VIII

MARRIAGE CIRCUMSTANCES

The question as to how, when, and where marriage will take place is an all-absorbing one to the majority of men and women, and no less important than interesting. Astrology has made it possible to answer these questions categorically and with particular precision and verity.

The conditions of connubial life are judged (in a male horoscope) from the condition of the Moon and Venus, and (in a female horoscope) from that of the Sun and Mars. The

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planet to which the luminary first forms an aspect after birth (that which it "applies" to) denotes the marriage partner. If the aspect be good there will be agreement and the choice of a partner will be fortunate. But if the aspect be evil, there will be trouble after marriage. The nature of the planet to which the luminary forms its aspect after birth ought also to be considered, for if it be that the luminary applies by a good aspect to a benefic planet, or to one that is well-placed and aspected, then there will be considerable happiness and fortune in marriage. On the other hand, if both the aspect and the planet be evil—as if the Moon were applying to the[Pg 77] opposition of Saturn or Uranus or Mars—then the fate in marriage will be extremely unhappy and disagreements will be frequent and even permanent.

When the aspect and the nature of the planet are at variance, as when the Moon has a good aspect to Saturn, or a bad aspect to Jupiter, there will be a mingled fortune of good and ill in marriage. There is no better sign of happiness and harmony in marriage than a good aspect between the Sun and Moon.

Moreover, it may happen that the Moon applies by good aspect to a planet after birth, and that there is at the same time a malefic body in the 7th House. This indicates that there will be agreement in the connubial life, but that bereavement will soon follow.

When the Moon applies to Neptune there will be some peculiarity or touch of genius in the partner, according as Neptune may be aspected. Uranus shows eccentricity and sometimes wilfulness. Saturn shows steadiness, industry; or jealousy and coldness. Jupiter indicates a good nature, bountiful and honest, but may be given to excess and extravagance. Mars induces industry and practicality, but it gives a strong temper and considerable independence. The Sun shows dignity and loyalty, but may indicate ostentation and foolish pride. Venus denotes peacefulness and a genial, refined nature, but its perversion brings indifference, neglect and disorderliness. Mercury denotes an active and energetic nature, but may produce a busybody and meddler.

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Everything depends on the aspect which the significant luminary throws to the planet it applies to, for if the aspect be good it will indicate the better qualities of that planet; but if evil, then there is frequently the unfortu[Pg 78]nate consequence of choosing a partner in whom the perverted qualities of the planet are predominant.

Good planets in the 7th House indicate a good partner, but when at the same time the aspect of the luminary is evil, it will denote a good marriage, followed by bereavement.

Marriage to a widow (or widower) occurs when Mars and Saturn are the planets concerned in the indications, as if Mars be in the 7th House and in aspect to Saturn, or if the Moon apply to Mars when aspected by Saturn, or when one of them is in the 5th House and the other in the 7th.

Love affairs before marriage are indicated by the 5th House, the planets therein and their aspects, and in a general sense by Venus in a male horoscope and Mars in a female horoscope.

Thus if Venus (or Mars) be afflicted by Saturn or Uranus there will be disappointment in the early affections. Uranus in aspect to Venus gives romantic attachments and much influence over the other sex. Neptune in aspect shows idealism, and when afflicting Venus it produces chaos and entanglement, danger of seduction. Mars afflicting Venus gives ardour and impulse.

More than one Marriage

is indicated when the luminary is in aspect to more than one planet in a double-bodied sign, *e.g.*, Gemini, Sagittarius, or Pisces. Or, if the luminary itself be in a double sign and in aspect to any planet other than one which may be in the 7th House. Also a double sign being on the cusp of the 7th House, and the luminary in a fruitful[Pg 79] sign, Cancer, Scorpio, or Pisces, or in aspect to planets in those signs. All these are signs of more than one marriage during life.

Signs of separation or divorce are as follows: The luminary applying to the ill aspect of a malefic planet, Venus afflicted, and Uranus in the 7th House or afflicting the Moon or Venus. In female horoscopes change the Significators, taking the Sun and Mars instead of the Moon and Venus, and judge the same.

Where more than one marriage is shown, the ruler of the 7th House denotes the first partner, and the planet ruling the sign it occupies is called its "dispositor" or "displacer." This dispositor represents the second partner.

The planet to which the significant luminary applies is that which is taken to describe the partner, according to the sign it is in. But if this planet be retrograde, i.e., going backwards in the zodiac by apparent motion, then it only represents an attachment which will be broken off. Its dispositor then becomes the significator of the partner. But the ruler of the 7th House is taken for the condition and fortunes of the partner, and if it be afflicted or badly placed and weak in the horoscope, then the marriage will be ill-assorted, unfortunate, and full of dissatisfaction. The contrary is the case when the significant planet is well placed and aspected.

The place or circumstances under which the partner will be met may be known from the sign and house occupied by the planet to which the luminary first applies after birth. Thus if it be in the 11th House, the partner will be met among friends, at the house of a friend, or introduced by a friend. If in the 3rd House, then on a[Pg 80] short journey or in correspondence; in the 5th, at a place of amusement; in the 10th, in the course of business; and so on, judgment being made according to the places and circumstances ruled by the House occupied by the planet.

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CHAPTER IX

INDICATIONS OF PROGENY

The 5th House, the planets therein and the position and aspects of the Moon, have to be considered in this matter.

If the 5th House be occupied by benefic planets, or planets well aspected by others, then the progeny will be a source of satisfaction and credit to the Subject, and will be reared to maturity. But the contrary is the case when the 5th House is occupied by malefic planets and such as may be heavily afflicted.

The Moon represents the tendency in the male and the capacity in the female, and when well aspected, or free from evil aspects and well placed, then there will be good fortune in connection with the progeny.

When Uranus afflicts a planet in the 5th House, there will be some premature births, and generally it will be observed that when planets are opposed from the 11th and 5th Houses, or malefic planets occupy those houses, there is trouble through the progeny, and usually the loss of one or more during infancy is to be feared.

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As to the number of children, no empirical rules exist for the judgment of this matter, which necessarily is a difficult one owing to the fact that we have no means of comparing the horoscopes of man and wife, but the nature of the sign on the cusp of the 5th House is usually to be depended upon for an approximation. Thus Aries, Leo, and Capricornus give small families. Taurus, Cancer, Virgo, Scorpio, and Pisces give large families, and the other signs yield a moderate family. When the Moon is strong, angular, and not afflicted, the number is increased. Twins are born from double-bodied signs occupying the cusp of the 5th House, or planets in the 5th in a double-bodied sign.

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The condition of each child is known in a general manner from the alternate Houses, commencing with the 5th. Thus the first child is (in a male horoscope) ruled by the 5th House, and planets therein; the second child by the 7th House; the third by the 9th House, and so on. In a female horoscope the first child is ruled by the 4th House; the second by the 6th House, and so on.

Thus if it be found that there is probability of loss of some of the progeny, the children most liable to affliction may be known by this method; for the Houses which contain the malefic planets, or the afflicted planets, correspond to the afflicted progeny.

Illustrious children are born to the Subject when the ruler of the 5th House is in elevation and well aspected, and in a congenial sign. But if the ruler of the 5th House be badly placed and aspected and in a sign of debility, *i.e.*, opposite to one over which it rules, then the progeny are ill-equipped for the battle of life, either mentally or morally. The particular qualities and[Pg 83] fortunes of the progeny can only be known from their individual horoscopes.

When malefic planets hold the 12th House in a female horoscope, there will be danger in confinement; and the same happens if either of the luminaries, but particularly the Moon, be afflicted in the 5th House.

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CHAPTER X

VOYAGES AND JOURNEYS

The indications of short journeys, inland and around the coast, are to be judged from the 3rd House and the planets therein. If a movable sign be on the cusp of the 3rd House,

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or planets in a movable sign occupy the 3rd House, then there will be much travelling and many short journeys to and fro. The aspects to these planets in the 3rd will indicate whether such journeys will be mainly successful or not. When there are no aspects to the planet or planets in the 3rd House the fortune of short journeys is to be judged from the nature of the planet in the 3rd, as if Jupiter, they will be fortunate and lucrative; but if Saturn, unfortunate and subject to many hindrances and delays. When malefic planets are afflicted in the 3rd House, or malefic planets in the 3rd throw evil aspects to the Sun or Moon, then there will be dangers and accidents.

Watery signs on the cusp of the 3rd House, or planets in watery signs in the 3rd, indicate cruising and yachting, short journeys by water around the coast. If the Moon be in good aspect to these planets, then there will be safety in passage; but if afflicted by[Pg 85] the planets in the 3rd there will be danger of collision, capsizing, &c., according to the nature of the planet in the 3rd House.

Long voyages are to be judged in exactly similar manner from the 9th House, the planets therein and their aspects.

The 4th House indicates the place of birth, and if this House hold a benefic planet, or either the Sun or Moon, well aspected, then there is fortune in the place of birth, and journeys should only be undertaken when they are without doubt fortunate in their issues and admit of a return to the native place. When, however, the 4th House is occupied by evil planets or planets heavily afflicted, it will be advisable to remove from the place of birth and seek fortune in more propitious localities.

In this matter the choice is made by reference to that planet which holds the greatest power for good in the horoscope of birth, and the quarter of the Heavens which it occupies will indicate the direction, as from the place of birth, to which the Subject should repair.

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Thus, if between the East horizon and the meridian, South-east; between the meridian and the West horizon, South-west; and so of the rest. The points of the compass follow the cardinal points of the Heavens, the Midheaven being South; the Nadir, North; the Ascendant, East; and the Descendant, West. If a malefic planet is rising or setting at birth it is advisable to fix the place of residence so much to the Eastward of the birthplace as will suffice to bring the malefic planets out of the angles of the horoscope. The same if malefic planets occupy the 10th or 4th Houses. On the contrary, if benefic planets are in the 3rd and 9th[Pg 86] Houses the Subject should move Westward so as to bring the benefic influences into the 10th and 4th Houses.

When benefic planets or planets well aspected occupy the angles of the figure at birth the Subject should not travel far, nor reside long away from the place of birth.

Indications of many voyages are as follows: Many planets in watery signs, Cancer, Scorpio, and Pisces, and also in the sign Virgo. When the majority of the planets are in cardinal and flexed signs, Aries, Gemini, Cancer, Virgo, Libra, Sagittarius, Capricornus, and Pisces, there will be many changes and journeys. Also if the Sun, Moon, Mars, and Mercury are in either the 3rd, 9th, 12th, or 6th Houses, there will be many journeys and long explorations in foreign countries.

When planets are afflicted in watery signs there will be danger in voyages, and if the Moon or Sun be afflicted in Virgo there will be submersion due to wreck.

Also, when there are planets, especially malefics, in Scorpio, Leo, Taurus, and Aquarius, afflicted by the aspects of other planets, or themselves afflicting the Sun or Moon, then there is danger of drowning.

When the signs of voyaging are propitious, and especially when the indications in the 4th House are not so, then removal from the place of birth to some other permanent centre of activity will be advisable. But when good planets or planets well aspected are

either rising or in the 4th House, the Subject should remain in his native place, and in the end his patience will be justified.

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CHAPTER XI

OF FRIENDS AND ENEMIES

The general harmony of the horoscope consists in the positions and aspects of the planets and their relations with the luminaries. When this is conspicuous there will be many friends and supporters, and the associations of the Subject will be pleasant and profitable. But when the horoscope is fraught with evil aspects and angular positions of the malefics there will be much strife and many enmities.

In a particular sense the friends and associations of the Subject are to be known from the 11th House and the planets therein. For if there be a benefic planet in the 11th, especially if in good aspect to either of the luminaries, there will be many friends and adherents.

Similarly, the enemies of the Subject are known from the 7th House, and secret enemies from the 12th. Malefic planets therein, especially in evil aspect to the Sun or Moon, shows many opponents.

Neptune in any malefic aspect to the Sun or Moon shows danger of deceit and treachery being practised[Pg 88] upon the Subject, and if violent testimonies concur from the ill aspects of Mars or Uranus he will be in danger of an ambush. Saturn in the 7th or 12th shows long feuds and implacable enmities. Uranus therein shows litigation and heckling

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of creditors. Mars therein is an index of violence and passionate hatred. Mercury therein shows much scandal and many petty annoyances.

Now observe the places of the malefic planets and the Houses wherein they are situated. Take the date when the Sun is in the same longitude as any of these malefic planets, which will be the same in any year, and this will be the birthday of persons who are to be avoided as likely to bring mischief into the life. Supposing, for instance, that Saturn is found at birth in the 10th House, in the 13th degree of the sign Aquarius. Reference to the Ephemeris (Sect. II., chap. i.) will show that the Sun is in Aquarius 13 on the 1st and 2nd February. Hence it would be unfortunate for the Subject to serve any man who was born between the 28th January and the 3rd February in any year. Also, if Uranus were in Leo 23 in the 7th House he should not go into partnership or marriage with anybody born on or near the 15th August in any year.

Take now the places of the benefic planets, and also the place of the Moon, and find the corresponding Solar dates, for these will be the birth dates of such persons as should be cultivated and drawn into close association for mutual benefit.

Observe also the trines and sextiles of the benefic planets and of the Moon, and the squares and opposi[Pg 89]tions of the malefics, for these will operate in a minor degree in a similar manner as already indicated.

A comparison of the horoscopes of persons, whether kings or plebeians, with those of others who have wrought great good or evil in their lives, will immediately establish this observation. Indeed there is nothing more dependable in the whole range of scientific observation than this sympathy and antipathy of horoscopes and their corresponding results. It is an argument for the claim of its advocates that Astrology should be regarded in the light of a science, for if the planets act not at all upon the dispositions and tendencies of men their squares and oppositions in two separate horoscopes would have no signification. Let those who are unhappily mated compare their horoscopes and they will find the signs of discord to which reference has been

made above. On the other hand, let any man who has been lifted to wealth, fame, or position by the patronage of another compare his horoscope with that of his benefactor, and it will be found that the benefic planets in the latter hold the places of the Sun, Moon, Midheaven, or Ascendant in his own. This frequently accounts for the fact that men with comparatively unfortunate horoscopes are sometimes found in positions of influence and in the enjoyment of considerable fortune. The complex fabric of life has its warp and woof wherein many coloured threads are woven together for the completing of the grand design, and the great loom of life has its wheels within wheels which only the Great Artificer can understand and regulate. We here below, subjects all of interplanetary action, must content ourselves with the design as[Pg 90] revealed to us in the history of mankind, or we must seek to understand the purpose of life, its motif, the complex laws which operate to bring about the unfoldment of the great plan, and thence to prognosticate that which hereafter shall be revealed to the commonplace observer.

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CHAPTER XII

THE END OF LIFE

The end of life is judged from the planets occupying the 8th and 4th Houses, for the 8th denotes Death, and the 4th denotes the final resting-place of man. When benefic planets, or the Luminaries well aspected, occupy these Houses, you may judge that the end will be peaceful, normal, and that death will take place in the midst of congenial and even exceptionally agreeable surroundings.

When, however, the malefic planets hold these Houses, or afflict the luminaries therein, you may judge greater stress and privation.

Uranus in the 8th House denotes a sudden death, and the same result is observed when the Luminaries therein are afflicted by Uranus. Neptune in the 8th denotes danger of trance, coma, and simulated death, and when this position is observed it is necessary that all the signs of mortification should be present before interment is effected. Saturn produces death by privation and obstructions, by chills and colds. Mars induces death by fevers and inflammatory action, and frequently by hæmorrhage.

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Planets in Fixed signs in the 8th House show death from heart or throat affections, affections of the excretory system and the blood. In Cardinal signs, the head, stomach, kidneys, or skin are the seats of the fatal disease. In Flexed signs, the lungs, bowels, and nervous system become fatally affected.

Violent or unnatural deaths are shown when either of the luminaries is simultaneously afflicted by the evil aspects of more than one of the malefic planets, or when both luminaries are separately afflicted by the malefic aspects of malefic planets, Neptune, Uranus, Saturn, or Mars.

When these testimonies occur, it will be found that Neptune produces death by assassination, Uranus by sudden catastrophes, explosions, hurts by electricity and machinery, Saturn by blows and falls, and Mars by cuts, burns, scalds, and effusion of blood. Particular judgment is drawn from the nature of the signs in which the significant planets are placed. Thus Saturn in Watery signs would produce drowning; in Taurus, strangling or decapitation; in Aries by the blow of a truncheon, &c. Similarly, Uranus in Gemini would produce accidents on short journeys, railway collisions, bicycle or motor accidents, and the like effects. It is impossible to cite all the effects due to the several planets in the different signs, but if the simple natures of the planets, signs and Houses are thoroughly understood, a combination of their significations will readily

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lead to an appreciation of exact effects. If I say that a certain fluid is H_2SO_4, any one having a knowledge of elementary chemistry will know that it is sulphuric acid, and similarly, if I say that a certain horoscope contains Saturn in Cancer in[Pg 93] the 3rd, which is astrologically expressed ♄ ♋ 3, any one who has read the first pages of this book with attention will be able to say: Let the Subject beware of short journeys by water! It is all chemistry of a kind.

When the 4th House contains benefic planets, or planets that throw good aspects to the luminaries, there will be peace and comfort in old age, or in the end of life whensoever it may be determined. Neptune therein shows retirement and sequestration, and when afflicting the luminaries or itself afflicted, it denotes death in an asylum, hospital, or other place of detention. Uranus in the 4th, in similar conditions, denotes a sudden and remarkable death. Saturn similarly placed and aspected shows death in exile, privation or great trouble. Mars in the 4th House afflicting the luminaries or itself afflicted by other adverse planets, denotes a violent death by gunshot or wound and in the midst of strife, or on the field of battle.

Before any catastrophic death be predicted, it should be carefully decided whether or not the death is compassed with uncommon and violent indications, not that one need have fear of the mere going out or coming into the world, but there is some choice of gates, and rather than affright the weak-minded with a sinister judgment, it is better to leave them to find their own way.

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SECTION IV

THE STARS IN THEIR COURSES

CHAPTER I

THE TIME-MEASURE

The planets, in their motions after birth, come into certain relations with the planets in the horoscope of birth, and also form aspects among themselves owing to the diversities of their motions in the Zodiac. In Astrological science there are two separate means of calculating the time of events, but both methods consist of bringing the body of one planet to the body or aspect of another, which process is called "Directing," and the arc described by the moving body is called an "Arc of Direction."

The first of these methods is the discovery of Claudius Ptolemy, the famous mathematician and geographer, the author of the Syntaxis, as set forth in his work the Tetrabiblos, or Four Books on the influence of the Stars. This method had the support and confirmation of the great Kepler. It has respect to the rising, setting, and[Pg 95] meridian passage of the planets after birth, whereby they are brought to the places or aspects of the planets in the Radix (the Root), which is the horoscope of birth.

The limits and nature of this work do not permit of a thorough exposition of this method, which entails some little knowledge of spherical trigonometry, but the reader who desires to perfect himself therein is referred to the author's work, entitled "Prognostic Astronomy." A facile application of the method is here given, by which any one may,

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by the aid of the Tables of Houses, make certain of the more important calculations by rule of thumb, and predict thence the times of remarkable events.

The principle involved is this: The number of degrees which pass over the meridian between the moment of birth and the rising or culminating of a planet, will equal the number of years which must elapse from birth until the influence of that planet becomes dominant.

Thus, if Jupiter at birth is coming to the meridian, that is to say, if it be in the 10th, 11th, or 12th House, count the number of degrees between the meridian and Jupiter, and in so many years from the time of birth there will be an access of good fortune. Similarly, if Saturn or other of the malefic planets be coming to the meridian, the number of degrees between it and the Midheaven will indicate the age at which troubles will abound.

Also, when the planets have passed the meridian, the measure is made in the same way, by bringing the Midheaven to the place of the planet, counting the degrees between the planet and Midheaven for the number of years at which it will operate.

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But the same and other planets may be directed to the horizon, by taking the Table of Houses for the latitude of the birthplace (Sect. I., chap. iii.) and finding therein under the column marked "Ascen." (Ascendant) the longitude held by any of the planets. Observe then what degree is on the Midheaven in the column marked 10 (10th House), and count the number of degrees between this Midheaven and the Midheaven at birth. The result will give the age at which the effects of such planets will be experienced.

Thus, for a person born in or near Liverpool or in the same latitude, suppose the Midheaven at birth to be in Scorpio 0, and Saturn to be in the 2nd House in Aquarius 8 degrees. I wish to bring Saturn to the horizon. In the Table of Houses I find that Aquarius 8 is on the Ascendant when Sagittarius 9 is on the Midheaven, and I therefore

count from Scorpio 0 to Sagittarius 9. This gives the age of 39 years, and as Saturn is in the 2nd House at birth, I say that at 39 years of age the Subject would experience financial disaster, and because Saturn comes then to the Ascendant, I also say there would be serious illness and depression of spirits.

When planets are setting at birth they are brought to the opposition of the Ascendant in a similar manner, only the opposite point of the zodiac must be found in the Tables under the Ascendant. Thus, if Mars were in the 7th House at birth in the 11th degree of Cancer, I find the opposite point (Capricornus 11) under the column of the Ascendant, and I note that Scorpio 19 is then on the Midheaven, so that from Scorpio 0 to Scorpio 19 gives 19 years, at which age the Subject would have a serious[Pg 97] illness due to inflammatory action in the stomach and probably produced by overwork and worry, as indicated by the sign Cancer and the planet Mars, or if there be indications of an accident, then an accident by scalding with hot water or acids would be predicted.

Planets are brought to the opposition of the Midheaven by counting the degrees which intervene between the longitude on the lower meridian at birth and that held by the planet.

In all such directions the conjunctions of benefic planets are advantageous when directed to the Midheaven or Ascendant, and the conjunctions of the malefics are indicated of periods of bad fortune. The oppositions are uniformly evil, whether the planet involved in the direction be a benefic or malefic. (Sect. I., chap. iv.)

These are the directions of the planets to the two Significators, the Midheaven and Ascendant. The Midheaven appertains to honours and credit, while the Ascendant has relation to the personal and bodily welfare and the general fortunes.

To direct the Midheaven or Ascendant to the other aspects of the planets, such as the sextile, trine, semisquare or square, it is only necessary to note the degrees in which

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these aspects fall and bring them to the Midheaven or Ascendant as if the body of the planet were itself there, and in the manner already indicated.

The Sun is directed after birth by its motion in the zodiac, which can be found in the Ephemeris for the year of birth, and the aspects it forms to the planets in the horoscope and in the daily progress should be tabulated. In most Ephemerides they are already cal[Pg 98]culated, so that the labour is considerably lightened. Each day after birth will represent one year of life, the mean motion of the Sun being about 1 degree per day. All that is necessary, therefore, is to count the number of days from birth to the date when the Sun forms an aspect, and that will give the age at which the planet aspected will produce its effects.

As the Sun goes through the zodiac the other bodies make progress along with it, in which course they form aspects to the Midheaven, Ascendant, the Sun and Moon in the horoscope of birth. These are called “Secondary” directions, and in connection with the Sun’s aspects after birth, constituted the system in use among the Arabian astrologers.

Minor periods of good and bad fortune, subsidiary to the above periodic influences, are taken from the Moon’s progress after birth, in which one day equals one year of life, and two hours equal one month. These directions of the Moon afford a monthly prognosis of the course of events, and are useful in the conduct of minor affairs in life. When they are contrary to the general trend and import of the periodic directions made to the Midheaven, Ascendant and Sun, they act indifferently, and frequently produce only passing benefits or annoyances; but when they are in agreement with the Primary Directions cited above, then they accentuate and define the nature and time of events. As if the Primaries be good and the Lunar directions evil, then there will be a predominance of good fortune with some current disturbances; but both being good there will be abundant success and satisfaction; while if the Primaries be evil and the Lunar directions good, the latter will serve only[Pg 99] to moderate the effects for the time being of the Primary evil indications.

An intelligent apercu of the principles of directing will greatly enhance the value of any prognostications made from the horoscope of birth, as it will enable the student to select those periods in the life when the effects due to any planet are most likely to eventuate. Thus, if Saturn be in the 2nd House at birth, it may be said that there would follow some periods of great financial stress, and the rising of Saturn by direction after birth would show the time when one, at all events, of such periods would be experienced.

And here is the great fact upon which astrologers the world over are prepared to stand or fall. If the planets have no effect in the lives of men, their directions to the angles of the horoscope can have no effect; but never was it found that a man had evil fortunes at the period when the planet Jupiter was directed to the Midheaven or Ascendant, or anything but bad fortune when Saturn was similarly directed. The fact is there, and we cannot get away from it. The only question is as to how far we can intelligently carry our investigations beyond that point, and intelligibly convey our discoveries to the world by their application to the affairs of daily life. The reader may judge for himself from a perusal of these pages.

The directions being calculated and tabulated in order of their occurrence, the time and general nature of the influences operating in successive periods of the life will stand revealed. The particular nature of the events indicated by the several directions may be known from (*a*) the House in which the directed planet is situated;[Pg 100] (*b*) the Sign it occupies; and (*c*) the aspect it forms, considered in relation to the nature of the planet. For example: If Uranus at birth were in the 9th House and the sign Gemini, its direction to the Midheaven would be the index of litigation in connection with writings, publications, or means of transit; because the 9th House, among other things, has relation to litigation and legal affairs, and Gemini (the 3rd House sign) to communications, writings, &c., while Uranus denotes sudden and unexpected events, ruptures, alienations, and complexities.

So if Saturn were in the 6th House in the sign Aquarius, its direction to the opposition of the Ascendant would indicate chills to the blood, anemia, &c., constituting a serious illness with probability of low fever; because the 6th House rules sickness, and Aquarius rules the blood, while Saturn is the cause of chills, paucity, and impediments.

Thus the time and nature of events may be known with great certainty.

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CHAPTER II

THE EFFECTS OF TRANSITS

Among the number of important indicators to which Astrologers refer in making a forecast of concurrent events, there are the transits of the planets over the places of the Significators at birth, the positions of Eclipses, and those of the lunations.

The first of these chronocrators depends upon the revolutions of the planets in their orbits. Each planet has a period in which it completes its revolution in the heavens, in the course of which it passes the places of the Sun, Moon, Midheaven, and Ascendant of the horoscope. This passage over the radical Significators is technically termed its "transit," and it will be found that such transits afford a very precise and reliable source of prognostication, for the time of a planet's transit is known in advance of its occurrence (see Sect. II., chap. iv.), and the effects of such transit are in exact terms of the nature of the planet concerned. It is only necessary to add that the Midheaven and the Sun have relation to the position and honour of the Subject, while the Moon and Ascendant have relation to the personal health and general fortunes. The Sun[Pg 102] and Midheaven also signify the father, and the Moon has general signification of the mother.

Venus signifies domestic and love affairs, the affections and sentiments; while Mercury signifies the mental disposition. So Uranus in transit over the place of Venus will give a love affair, a romantic attachment. Mars over the place of Venus will engender passionate love. Saturn over Venus will give disappointment or bereavement; and Neptune thereover will bring entanglements and complications, with danger of being led astray. Saturn over Mercury will produce melancholy and many errors of judgment. Mars over the same planet will excite the mind and dispose to impulse and unreasoning anger, quarrels and disputation. Uranus over Mercury will render the mind wayward and headstrong, disposed to erratic courses and egotistic methods. Neptune passing the place of Mercury produces deceits, treacheries, and apprehension of impending evil, a sense of espionage and ambush. It involves the mind in tortuous and complicated schemes, and disposes to secrecy and wariness.

The transits of the major planets are of chief significance, and their effects are rendered more weighty and lasting when at the time of transit they are retrograde in the zodiac; while their stationary positions on the places of the Significators have almost the same power as Primary Directions.

Of Eclipses.

An Eclipse of the Sun or Moon falling on the place of any Significator in the horoscope of birth is of a sinister import, and cannot be too seriously considered. Falling[Pg 103] on the Ascendant or the Moon they affect the health and general fortunes very seriously, and only a series of subsequent good directions can avail to restore the Subject to his normal condition. On the Midheaven or the Sun, the honour and fortunes may both be affected, and in the same serious degree. The Eclipses falling on the places of the other planets will produce effects in accord with the nature of those planets and the Houses they occupy. To have any appreciable effect, the Eclipses must be within two degrees of any of the radical positions, or of their opposition aspects.

Of Lunations.

The Lunations recur in the same part of the Ecliptic every nineteen years. Considered in relation to the current indications they afford the means of a monthly forecast of events. Thus, if the lunation for the month falls on the place of Jupiter in the horoscope of birth, it will produce good effects in that department of life which is governed by the House in which Jupiter is situated; as if in the 11th, through friends; in the 4th, through property or rental; in the 6th, through servants and health; in the 8th, through a financial colleague, &c.

The effects of Lunations are subsidiary to the current Lunar directions, and these in turn are subsidiary to the transits, and the transits to the Primary Directions. By this it is not meant that they are inoperative, nor that they fail to indicate the events of the month, but their power and degree of influence is subject to the greater influence of superior causes. And as a general observation it may be affirmed that the less frequently any celestial position occurs in a horoscope, the greater is its[Pg 104] influence. This fact gives to primary directions their great influence in the life, for they can only occur once in a lifetime; and for the same reason Eclipses have a major significance, for the same Eclipse only recurs after an interval of 649 years. The transits of Neptune, of Uranus, of Saturn and Jupiter and Mars follow in their order of frequency. Neptune has a revolution of about 165 years, Uranus 84 years, Saturn 30 years, Jupiter 12 years, and Mars 1¼ years.

Major effects must not therefore be referred to inferior causes, and minor effects must not be referred to superior causes. In universal or even national cataclysms, individual fortunes are submerged.

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CHAPTER III

HOW TO SUMMARISE A HOROSCOPE

Before leaving the exposition of this subject, it may be of advantage to the reader if I give some idea of the method to be pursued in the complete handling of a horoscope.

First, then, erect the figure of birth, taking care to use the Ephemeris of the year of birth, and also the correct Table of Houses for the latitude of the place of birth.

Next proceed to attempt a description of the chief personal traits of the Subject, following in succession with a well-considered judgment on the constitution, hereditary tendencies, the health and pathological predispositions, the mental traits and disposition, considering these latter in relation to the state of health indicated. Then pass to a consideration of the environing conditions of life; the financial condition and outlook; the position in life; the occupation; prospects and conditions of marriage; of progeny. Judge next concerning voyages and journeys. Finish with a statement regarding the predominance of friends or enemies, and select dates by Solar positions, as already instructed. In cases where it is not objected[Pg 106] to, an approximation may be made to the time and nature of death.

Throughout the whole of this judgment, the periods when these predicted effects will come into force should be made by reference to the rising, setting, and meridian passage of the planets, the solar aspects, and transits.

Care should be taken to weigh justly and impartially the evidence set before you in the figure of the heavens for birth. Major importance should be given to those planets which are in angles, and those which are in elevation, for the nearer a planet may be to the Midheaven, the greater is its influence for good or ill, according to its nature and aspect.

Read what you see, not what you imagine should be the destiny of an individual. If you are in complete ignorance of his person, position, and environment, so much the better.

If you follow carefully the various rules which are contained in this book, you may at first make some errors of judgment, but as you become familiar with the task, even these errors will become few and far between, and in the end the language of the horoscope will become so intelligible and clear that it will interpret itself, and the whole trend and potentiality for good or ill of any birth-figure will force itself upon you in just the same way as when a man walks into your presence with his character clearly stamped upon his face, so that you have only to look and know.

Having become proficient in the judgment of birth-figures, you will do well to proceed to a closer study of the mathematics of astrology, making yourself proficient in the various methods of directing, so that you may at[Pg 107] any time refine upon your general prognostics, and make predictions which are clear, sharp, and to the point.

Undoubtedly there is a modicum of intuitive perception at work in the judgment of any horoscope, which will enable you to seize upon the small details and exact pointing of any matter, and this perhaps constitutes the whole difference between the rule of thumb worker and the inspirational reasoning of the intuitive worker. The one exhausts the books and the other embellishes them. It is so with science in every department. The books will take you up to a certain point of proficiency, and a strict regard for the formulæ will keep you within the bounds of safety. But if you are ever to make a discovery or become a recognised exponent of any science, you must be naturally gifted with what is called the "scientific imagination," another name for intuition. But at no point does true intuition part company with exact reasoning. There is no lesion. The one is an extension of the other. It is the higher reason, which argues from the known to the unknown. And the Astrologer is in this respect as the poet, "born, not made." But a moment's reflection will suffice to convince you that the more facile you may become with the book-learning and technique of Astrology, the more you will leave the intuition free to act. When a lad is struggling with his multiplication tables, his appreciation of the binomial theorem or the differential calculus cannot be said to amount to much.

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And, in the same way, a person who is stuffing down the Alphabet of Astrology cannot be expected to intuit anything concerning the potential of the Sun's direction to the quadrature of Saturn.

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CHAPTER IV

HOW TO BECOME A SUCCESSFUL ASTROLOGER

I take it that nobody nowadays can afford to fritter away time in the study of subjects which are not likely to become a source of benefit to himself and others. If there be such people among my readers, which I consider unlikely, I may dismiss them offhand with the remark that they will never become successful astrologers, for the first word of practical astrology is Utility. If the science had not its practical application to the affairs of everyday life, if its principles contained no word of assurance and hope for the myriad toilers of this world, no word of admonition for the self-indulgent parasites of modern social life, if, in short, it did not make for the betterment of human life and thought, it would never have attracted the attention of Aristotle, Cicero, Galen, Claudius Ptolemy, Thales, and others of the old world, and such men as Bacon, Cardan, Archbishop Usher, Naibod, Mercator, Ashmole, Kenelm Digby, Sir Christopher Heydon, Dryden, Dr. John Butler, Sir George Wharton, Vincent Wing, George Witchel, Tycho Brahe, Kepler, and Flamstead of more recent biography. Indeed, in whatever age or country[Pg 109] we may elect to make our inquiries concerning Astrology, there are to be found a host of intelligent and even illustrious advocates in every department of life and learning. Suffice it to say that the modern student of this most ancient of all sciences is at all times in very good company.

Let it first be understood that there is an object to be attained in the study of Astrology, and that the pursuit of it in the gratification of an idle curiosity alone will inevitably entail the waste of time which invariably attaches to idleness of all descriptions, and we may then profitably consider whether or not the subject is worth the labour which it will demand from the man who has something to do in the world and little enough time in which to do it. These are stressful times, and we have to be economical in our efforts. We have strength enough to carry us through, but neither strength enough to thresh the wind nor time enough to fish in puddles.

What, then, does Astrology offer to the patient worker, the man who would become a successful Astrologer?

First and foremost it will enable him to gain an insight into individual motive and character which no other science can possibly afford. It will enable him to know himself, his own strength and weakness, and so fit him to deal harmoniously and justly with others. It will enhance his opportunities to the extent that he is able to foresee and make use of all benefic influences operating through his own environment. It will give him timely warning of his approach to the quicksands and pitfalls which occur in his passage through life. He[Pg 110] will discern his special physical weaknesses, and the times of his predisposition to sickness, the nature thereof, and the precautions which are necessary. He will know whom to cultivate and whom to avoid, and in selecting a partner in business or a wife for his home, he will be guided by a foreknowledge of evils to be avoided and of good things to be gained. He will choose his path in life with the confidence that it is for him the line of least resistance and therefore that of greatest progress. He will not become obsessed by ambitions beyond his power to achieve. He will learn the power of adaptation to environment, and thereby effect his work in the world with the least possible friction and waste of force. He will know when to make provision against sickness, accident, and death. He will not invest capital where interest is not to be gained. He will see the end from the beginning. It may not make him a

brilliant success in the world, but it will assuredly save him from being a failure. He will find causes for inexplicable things, and his mind will rest content in the knowledge hat while he is working out the highest potentialities of his own horoscope, the major problems and intricacies of life are not of his making or needful of his solving. And finally, when his time comes to "shuffle off this mortal coil," he will be prepared, and will know that it is the will of Heaven, expressed and determined from the moment of his birth. Rightly employed, Astrology cannot fail to improve the man who makes of it a serious study, fitting him to be of greater use to others and of higher service to the race at large.

But to become a successful Astrologer he must study[Pg 111] patiently for several years, testing each statement that is made in the books by reference to his own and several other horoscopes. He must be able to erect a figure of the Heavens with mathematical accuracy for any given time and place, work out directions by the use of the sphere or trigonometrical tables, and have a competent knowledge of the motions and periods of the various planetary bodies. When thus satisfied in his own mind that Astrology is a dependable science, and that he is capable of demonstrating it under test conditions, he must be generous in the use of it. Here and there he will find one who is opposed to the belief that the stars have any influence in human affairs. Let him not waste logic with such a man, but go straight to the task of convincing him by an appeal to facts.

For preference, select a period when the directional influences are such as seem likely to hit the sceptic with considerable force, define the event, make a careful calculation of the time of its fulfilment, and put them on paper, which, being yet unread by the man of Common-sense, should be placed under cover, sealed, and endorsed to be opened only after a certain date.

Now a man who has been hammered rather severely and in quite an unexpected manner, is usually open to conviction of truth when he finds that the nature and date of his disaster have been accurately foretold. Being a man of "common-sense" and not of

intuition, he will probably think that the Astrologer might even have saved him from the consequences of his own lack of foresight. So indeed might the Astrologer have done had he taken the management of affairs from the beginning; but to step in half-way to arrest causes which are already in operation[Pg 112] and charged with inevitable effects, is requiring too much of any man short of a Prime Minister!

There are certain things which even the most astute deductive reasoner cannot foresee, and these are the points that should be utilised by the Astrologer who seeks to convince others of the truth of his science. A man cannot reason from his doorstep to a street accident. If he could he would avoid it. All men are not subject to accidents, however. But almost all are subject to bereavements, losses, sicknesses, and changes of fortune. Those are the points which the Astrologer intent on proselytising, usually makes use of. But events need not be in futurity to carry conviction. If it can be shown that by mathematical calculations the events of the past can be recited with precision and exactness, it is evident to the meanest intellect that nothing hinders from an extension of such calculations into the future. And once convinced of the reliability of such claims to foreknowledge, the practical man of the world is not slow to avail himself of its uses.

But Astrology is not exhausted in the study of individual horoscopes, for there are other departments of this extensive science. The influence of the planets upon the weather, as embodied in Astro-meteorology; the rise and fall of Empires, political changes, the outbreak of wars, of revolutions, of epidemics, as defined by State Astrology so much in repute among the Oriental rulers; the occurrence of tidal waves, earthquakes, and other seismic phenomena, all form a part of the complete equipment of the practical Astrologer.

It would be superfluous to recite here the numerous and strikingly accurate forecasts which have been made[Pg 113] by modern exponents of the science, but it is only right to say that they reflect considerable credit upon their authors, for the above-mentioned departments of astrological learning are by no means in the same efficient state as

Genethliacal Astrology, to an outline of which this work is devoted. Anciently it was otherwise, and even in the East at this day they hold some secrets of traditional knowledge, concerning which they are unduly mysterious and of which we have only the evidence afforded by more exact prediction upon certain points.

Prejudice and Ignorance are the twin giants which bar the path of the world's progress to-day, even as they have ever done. Step by step they have been beaten back, baffled by the light of Reason, harassed by the arrows of Truth. The world is redeeming its ancient heritage. All that is now required to establish the paramount truth of Astrology as a science is an impartial and thorough investigation, preferably at the hands of scientific men, of its methods and principles. Not that the truth is to be ratified at the hands of modern scientists, seeing that their own teaching constitutes a mere shifting orthodoxy, liable at any moment to undergo a fundamental change in theory by the discovery of a single new fact—but that to such men rightly belongs the duty of disproving the claims of Astrology to be considered as a science, for it is a fact to be regretted that certain members of their body have written against the subject in a spirit of prejudice and without adducing any data in support of their contention, which ill becomes any man of scientific pretensions and is above all things detrimental to the cause of Truth.

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CHAPTER V

A POPULAR ILLUSTRATION

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In order to summarise and illustrate the principles which have been enunciated in the course of this work, I shall avail myself of the horoscope of Mr. Joseph Chamberlain, who was born on the 8th of July, 1836, at Highbury, the time of birth being stated to have been at about 2.30 in the morning. Calculations have since enabled us to fix the exact time of birth as at 2 h. 36 m. a.m. I subjoin the horoscopical figure for that time, the calculation of which is as follows:—

	H.	M.	S.
Midheaven in R.A. at Noon 7th July, 1836…	7	1	58
Add time elapsed since … … …	14	36	0
Equation for 14h. 33m. at 10 secs.		2	25
Midheaven in Right Ascension at Birth …	21	40	23

The Constitution.

Born under the sign Gemini, with Mercury rising in the sign Cancer, the Sun near the conjunction with Jupiter and in close sextile to the Moon, there is little [Pg 115] [Pg 116]doubt that the late Colonial Secretary is by nature gifted with an excellent constitution. The sextile of the luminaries is a powerful co-ordinator, and whenever sickness supervenes there will be a speedy recovery. The semisquare aspect of Mars, while disposing to gouty affections of the hands and feet, will contribute vital energy and power to throw off diseases, while at the same time predisposing to accidents and wounds to the right shoulder or clavicle.

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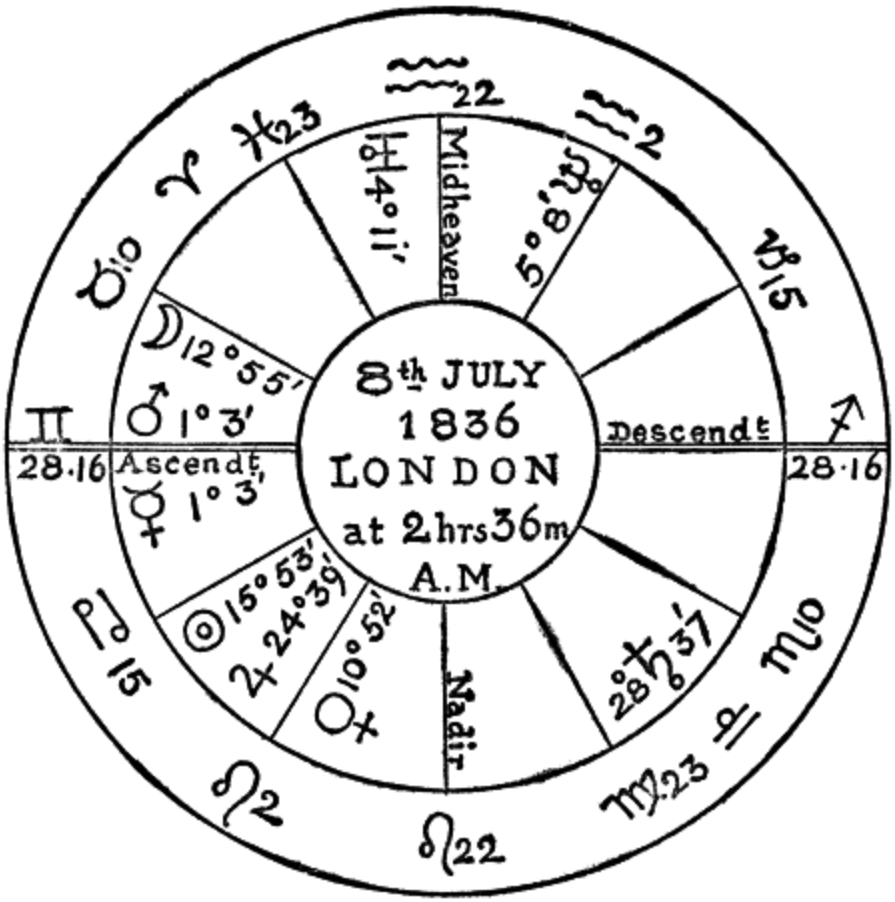

The rising sign gives nervous energy and enormous capacity for work, which is due to high nervous tension supported by a sound vitality. The only hereditary predisposition is that indicated by Mars, which induces to fevers, and gouty affections due to acidity.

The Health.

The Moon is strong in the sign Taurus, but not particularly well placed in the 12th House. It has, moreover, the square aspects of Neptune and Venus from fixed signs. These indications point to functional disorders of the heart, throat and excretory system. On the other hand, there are the good aspects of the Sun, Jupiter and Uranus to counteract these adverse tendencies, and it is certain that strong recuperative powers together with a normally good co-ordination of functions would induce a speedy recovery from any illness to which he may be liable. Considerable immunity from sickness of all sorts may therefore be predicated.

Character and Disposition.

The majority of the planets being in Cardinal signs, with three planets (including the Moon) in Fixed signs,[Pg 117] indicates a character that is energetic, ambitious, active, sharp, ingenious, lively, and persevering; capable of cutting out a line in life for himself and making headway against obstacles; disposed to ride roughshod over the weaknesses and prejudices of those who oppose him; gifted with a pioneer spirit, incisive manner, and disposed at times to effect his ends regardless of the feelings and opinions of others. At the same time there is sufficient patience, method, caution, and watchfulness to make this extreme definition of purpose very effective. Laborious, firm (at times obstinate), systematic, and self-reliant, he is capable of waiting for opportunities. But finally he carries his purpose with a *tour de force*.

That which he lacks is adaptability, suavity, and ability to enter into the feelings of others. He is too ambitious to be self-centred, but yet too intent to be sympathetic.

The rising of Mercury in trine aspect to Saturn and Uranus gives considerable mental capacity, a wide grasp of facts, a well-informed, apt and business-like mind; some originality, constructiveness, and power of marshalling facts and figures; patience, caution, and secrecy. There is not much imagination, and the sympathies are not wide. His methods and actions are governed by literal fact and mathematical certainty. He is an omnivorous devourer of the accessible. He takes the small fish by the handful and makes a meal of them; but he leaves the ponderous whales for those of greater imagination and more leisurely habit.

The quadrature of Mars to Uranus will induce momentary outbursts of temper and some irritability of nature, but the character I am delineating is not such[Pg 118] as can easily be played upon, for it is remarkably lacking in emotional susceptibility. Nevertheless, the inspirational faculty is by no means absent, and the presence of Neptune in the 9th House in trine to the rising Mercury, is an index of considerable inventive genius, extreme range of mental perception, and telescopic discernment of future events. Venus

in the 3rd House shows some artistic tastes and fancies, considerable appreciation of art and culture, a fondness for flowers, bright lights, &c. But dominant above all are the two angular influences of Uranus and Mercury, which render the mind mathematical and precise, commercial, apt, business-like, energetic, and eminently magnetic.

Finance.

The position of the Sun in conjunction with Jupiter in the sign Cancer, in sextile to the Moon, is the index of a high fortune and means exceeding a competence. It is here worthy of note that Cancer, which in this horoscope holds the Sun, Jupiter, and Mercury, is the ruling sign of South Africa, with which Colony Mr. Chamberlain's fortunes have been for a long time so intimately associated. It is also worthy of note that both Cecil Rhodes and Barney Barnato were born on the same day of the year, the 5th of July, with the Sun in the 14th degree of Cancer. In the former case the Sun was conjoined with Moon and Venus, in sextile to Uranus and trine to Neptune, while in the latter case the Sun was in trine to Jupiter. In regard to Mr. Chamberlain's horoscope, it will be observed that Jupiter, which holds such effective power for increase in the 2nd House, is also the ruler of the 7th, and it is to be remembered that all partnerships,[Pg 119] commercial or social, which he has contracted have so far proved highly satisfactory from a merely monetary point of view. Further, the Moon is affected with the good aspect of the Sun in the 2nd House, which is a further indication that on a purely financial basis Mr. Chamberlain is a man worth going into partnership with.

Position.

All the planets except Neptune and Saturn are rising, and this at once indicates a man ambitious of independence and honours, one who is confessedly a candidate for responsibility.

Uranus in the Midheaven and close to the meridian indicates that association with civic and governmental bodies in which Mr. Chamberlain has rendered himself so

conspicuous a figure, and whereas the trine aspect of Mercury in the Ascendant to Uranus in the Midheaven and the sextile of the Moon to Uranus also are sure indications of a wide popularity, the square aspect of Mars to Uranus from the 12th House, will not fail to engender many veiled enmities, machinations, and inimical plots, which have for their object the overthrow of Mr. Chamberlain's prestige, and which, failing, will find expression in vituperative abuse and bitter animosity. But those who understand the virtue of the orientality of planets in a horoscope will retain their confidence in Mr. Chamberlain's ability to hold his own against all opponents.

It will be observed that the direction of the Ascendant to the place of Uranus in the horoscope coincides with the age of Mr. Chamberlain at the outbreak of hostilities[Pg 120] in South Africa, while the direction of Midheaven opposition Saturn coincides with the progress of the Boer War. Did space permit it would be possible to adduce a long list of directional arcs coinciding with the time and nature of all the more important epochs in Mr. Chamberlain's career. The student is invited to make some test of this matter by the aid of the rules already given in these pages.

Marriage.

Mr. Chamberlain has been thrice married. It will be observed that not only is there a double-bodied sign on the cusp of the 7th House, but the Moon also applies to both the Sun and Jupiter in the sign Cancer. (See Sect. III., chap. 8.) The aspect of the Moon being benefic to both the Sun and Jupiter, the marital state would be both harmonious and fortunate. It is, of course, well known that Mr. Chamberlain has, from a merely worldly point of view, married most advantageously. This observation may be called "wise after the event," but I would observe that this geniture preceded my judgment of it, and the rules from which I judge are to be found in the Tetrabiblos of Ptolemy, written in the second century, and since tested and found reliable by successive astrologers during some seventeen centuries. Saturn's aspect to Jupiter, the ruler of the 7th House, and the

Moon's quadrature to Venus must be held accountable for the successive bereavements which have disturbed the conjugal life in this case.

Progeny.

The position of Saturn in the 5th House, and the[Pg 121] affliction of Venus by Neptune and the Moon, will serve to account, in connection with the marriage conditions, for the small family which has been born to Mr. Chamberlain, for observe that Venus is the ruler, jointly with Mercury, of the 5th House, while Saturn is in the 5th and ruler of the 8th House. The same positions and aspects threaten to curtail the succession.

The position of Mercury, joint ruler of the 5th, in the sign Cancer, and just about to rise in the horoscope, promises honours and distinctions to the first-born.

Travelling.

The Moon and Mars are cadent in the Horoscope, and Mercury, the "winged messenger" (symbol of the trading-ship), is rising. These are indications of many journeys and changes and constant unrest. But fixed signs being on the cusps of the 3rd and 9th Houses, and the Moon also in a fixed sign, will suffice to account for the fact that Mr. Chamberlain is not a great long-distance traveller. Cancer and Leo holding the benefics and the Sun also well aspected in Cancer, the Moon being in Taurus, shows at once that France, South Africa, Holland, Scotland, and Ireland are parts of the world in which the operations of Mr. Chamberlain would meet with success, if it be not superfluous to detail specific territories in face of the abundant evidence of general success which this horoscope affords.

Friends and Enemies.

It was the boast of Bismarck that he was the "best-hated man in Europe," and it would be strange indeed if Mr. Chamberlain had passed through life and attained so[Pg 122] prominent a position without incurring the enmity, or arousing the envy and malice

of a considerable number of individuals. Nevertheless, there are only two aspects in this horoscope which seem to point to any sort of trouble from such causes. The points are those of Neptune, which afflicts both the Moon and Venus, and of Mars which afflicts Uranus in the Midheaven and the Sun in the 2nd House.

By referring these two points to the Ecliptic we find they correspond to the Sun's position on or about the 24th of May, and the 26th of January, and I shall leave the reader to look up his Almanac and find the individuals (illustrious they must needs be to find chronicle in Whittaker) who were capable of filling the requirements of the case.

As to friends, Mr. Chamberlain should lack nothing. With the Moon in sextile to the Sun and Jupiter, the ruler of the 11th House, in the same benefic relations with the Moon, he would always be able to count upon a strong adherence, and the only adverse indication in this matter is that Mars, part ruler of the 11th House, holds the 12th House in square aspect to Uranus in the Midheaven. This would be interpreted to mean that some of his friends will be disposed to become his enemies, and to militate, although ineffectually, against his credit and position. Why ineffectually? Because Mercury, the ruler of the Ascendant and prime significator of Mr. Chamberlain, is angular and well aspected, while Mars is weak and afflicted by Uranus which is in elevation above it.

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Conclusion.

Let it not be thought that the fame and position which Mr. Chamberlain has attained in the political world is due entirely to the benefic position of the principal planets in his horoscope of birth. Opportunity is not everything. The ability to use it counts for much, and only a man of exceptional industry, firmness, and decision, could have won for himself such peculiar distinction; and only a man of singular faculty could have sustained his position in the face of so much determined opposition. It will doubtless be a matter of extreme interest to the student of this horoscope, as to every one interested

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in the political situation of to-day, to observe the concurrent influences at work in the year 1904–5. Mr. Chamberlain attained his sixty-eighth birthday anniversary on the 8th of July, 1904, and by adding that number of degrees to the 22nd degree of Aquarius we obtain Taurus 0 as the point which has attained the meridian by "direction." This is called the Progressed Midheaven. Referring this point of the Zodiac to the places of the planets at birth, it is observed that the Midheaven is approaching the sextile aspect of Mercury, having recently passed the opposition of Saturn, and having attained that aspect in 1905, it passes in 1908 to the sextile of Uranus, the planet which holds the greatest elevation in the horoscope of birth. The Ascendant under the Midheaven of Taurus 0 is Leo 16° 28′, which is the Progressed Ascendant for the year 1904. It is in semisquare aspect to Mercury, and is the occasion of many anxieties, worries, and annoyances, and some journeys by water.[Pg 124] It also indicates some derangement of the health due to nervous strain, and affecting the stomach (ruled by Cancer). The Sun is directed in similar manner to the 24th degree of the sign Virgo, where it meets the sextile aspect of Jupiter in the 2nd House, in the sign of its exaltation, Cancer. This gives access of good fortune, increase of honor and prestige, and as Jupiter rules the 11th House, many adherents and supporters. But being also in semisquare to Venus, Mr. Chamberlain is in danger of losing a brother or other near male relative. The Moon by the same measure is within 4 degrees of the place of Jupiter, again marking the year 1908 as one of exceptional advantage, and in July of that year Jupiter passes over the Progressed Ascendant.

During the year 1904 Saturn has been close to the Midheaven of the radical horoscope, being in Aquarius 21, and stationary therein, during the month of June. In March, and again in October, it transits the opposition of the Progressed Ascendant in Aquarius 16,

while in February, June, and December Uranus is in transit over the opposition of the radical Ascendant in Sagittarius 28° 16′.

In 1905, Saturn will transit the Midheaven in the horoscope of birth, and in the summer of the same year Mars will be Stationary in opposition to the place of the Moon at birth. Both these periods will be fraught with cares and anxieties, and the latter influence will act detrimentally on the health, disposing to attacks of gout and inflammatory action in the system.

But while the approaching and concurrent Primary directions are of a highly benefic nature, there will be no hint of a breakdown either in health or reputation, and[Pg 125] it needs only the additional good influence of a transit or Secondary Lunar direction to carry Mr. Chamberlain at full swing to the summit of popular esteem and political power.

The curious who seek for coincidences will not be surprised and may be gratified to note that Merx, the root of the name of Mercury, signifies trade, and that the planet Mercury is rising in this horoscope of Mr. Chamberlain, who won great distinction for himself as President of the Board of Trade. Those who in more earnest vein seek for causes will do well to trace the transits of the major planets through this horoscope over the places of the Significators, the Sun, Moon, Midheaven, and Ascendant at all the important epochs in the life of the late Colonial Secretary. The working out of the more important directional arcs for the same period I can safely leave to the reader whose desire to thoroughly test the claims of Astrology has been sufficiently aroused by the

perusal of these pages. It is at all times easier to dispute than to disprove, and this apparently is the reason for so much that is said, and so little that is shown, against Astrology.

As to the *modus operandi* of planetary influence I conceive that the brain cells are infilled with a nervous pabulum of such delicate nature as to be capable of responding to the finer etheric vibrations instituted by the planets; that the electrostatic condition of the earth's atmosphere at the moment of birth determines the particular mode or modes of vibration to which the individual brain is syntonically responsive; and I could, did space permit, immediately adduce hundreds of instances to show that whenever the same positions or planetary[Pg 126] aspects recur in the heavens as were in existence at the moment of a birth, the individual immediately responds to the excitation, and gives instant evidence of such excitation by actions in agreement with the nature of the planets involved.

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CHAPTER VI

PLANETARY PERIODS, ETC.

We now come to the point where it will be necessary to explain more fully the various elements with which so far the reader has only been dealing in a more or less mechanical way. It is, of course, of first importance that the student of Astrology should have a correct method, and this has been given as fully as space will permit in the preceding pages. But it is also necessary that one should know why he is doing a thing, as well as how to do it. Henry Ward Beecher once said that if a man turned soil with a spade

knowing why he did it, the work was more effectively done than if he did not know. For this reason it will be convenient for the student to have a general view of the cosmical elements that he employs in his calculations and of the factors that enter into his consideration when studying a horoscope.

For purposes of calculation, the astronomer regards the planets as moving around the Sun in circular orbits at a uniform rate, and the positions thus obtained are called the mean longitudes of the planets. But it is known that the orbit of a planet answers to the functions of an ellipse,[Pg 128] of which the Sun is presumed to occupy one of the foci. Then it becomes necessary to correct the Mean Longitude of the planet by an equation which is called the Centre equation.

Let us make this quite clear. The circular orbit supposed in the first instance is what may be called the Mean Orbit of the planet, as compared with its true orbit, which is elliptical. Similarly, the motion of the planet in the circular orbit is called the Mean Motion, as compared with the true motion, which is variable, being quickest at the perihelion and slowest at the aphelion.

The difference between the Mean longitude and the True longitude is determined by the Anomaly, which is the distance of the planet from its Aphelion, or farthest distance from the Sun. The anomaly is thus L-A, i. e., longitude minus aphelion.

But it will be seen that ellipses may be of greater or less eccentricity, and the equation to centre depends on the eccentricity. This may need a word of explanation. Suppose a circular orbit. Draw the two diameters at right angles to one another; they are of equal length. Now suppose another figure in which the one diameter is longer than the other. The circumference of this figure will be an ellipse. The greater diameter is called the Major Axis, and the diameter at right angles to it is the Minor Axis. The proportion of one to the other axis determines the amount of eccentricity. Twice the eccentricity gives the equation to centre, and to reduce this to degrees and minutes of a circle it has to be multiplied by the chord of 60 degrees, which is 57°·29578. This gives the maximum

equation to centre when the planet is 3 signs or 90 degrees from its aphelion, and therefore on the Minor Axis.

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The eccentricity of the various planets may be here stated: Mercury, 0.2055; Mars, 0.0931; Jupiter, 0.0482; Saturn, 0.9562; Uranus, 0.9467; Earth, 0.0168; Venus, 0.0068. These quantities undergo a gradual change. Thus it is found that Jupiter, Mars, and Mercury are increasing the eccentricity of their orbits, while Venus, the Earth, and Saturn are reducing it. The orbit of Venus is now almost circular, and it affords an example of the perfect astronomical paradigm.

Thus by the mean motions and the equation to centre the true longitudes of the planets in their heliocentric orbits are obtained. But inasmuch as the orbits of the planets do not lie in the same plane as the Sun, but cross its apparent path at various angles of inclination, a further equation is due to reduce the orbital longitudes of the planets to the ecliptic.

To further reduce these true longitudes into their geocentric equivalents, i. e., as seen from the Earth's centre, we have to employ the angle of Parallax, which is the angle of difference as seen from two different points in space. This will vary according to the relative distances of the bodies from one another. The Moon's longitude is always taken geocentrically. When approximate longitudes are required, the employment of a mean vector, which is equal to half the minor axis of the planet, is found convenient. For the convenience of astronomical students I may here give the constant logarithms of the values of the tangent, which, being added to the logarithm of the tangent of half the distance of the planet from the Sun in longitude, will give the tangent of the complement.

LOGARITHMS

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Neptune, 9.97107; Uranus, 9.95479; Saturn, 9.90858;[Pg 130] Jupiter, 9.83114; Mars, 9.32457; Venus, 9.20812; Mercury, 9.63210.

To these add the bog, tangent of half the angle between the planet and Sun, taken by heliocentric longitude, which call A. Call the result B. For major planets add A and B, and for minor planets subtract B from A. In either case the result will be the angle of longitude between the planet and the Sun as seen from the Earth, and hence its geocentric longitude may be known.

But a more convenient method of obtaining the approximate longitudes of the planets geocentrically is by means of the Planetary Geocentric periods. Thus Uranus has a period of 84 years, after which it returns to the same longitude on the same day of the year and will be further advanced in its orbit by 1° 5′. Saturn has a period of 59 years, after which it comes to the same place in the zodiac and will be further advanced by 1° 53′. Jupiter has a period of 83 years, when it is found to be only 4′ advanced upon its former longitude. Mars' period is 79 years plus an advance of 2° 4′. Mercury's period is also 79 years, and its advance is 5° 32′. Venus has a period of 8 years, when it is further advanced in the zodiac by 1° 32′.

For the calculation of the approximate geocentric longitude of the major planets these periods are very useful, but are of less value in regard to the minor planets Venus and Mercury.

Suppose I want the longitude of Uranus in the year A. D. 827. I have its longitude on the first of January, 1912, in Capricorn 28° 17′. Then 1912-827 gives 1,085 years, which being divided by the period of Uranus (84 years), yields 12 periods and 77 years. The increment[Pg 131] for 1 period being 1° 5′, that for 12 will be 13°, and 77-84ths of 1° 5′ will be another degree, making 14 degrees. As the date is anterior, this amount must be subtracted from its longitude on the first of January, A. D. 827, and in effect we obtain Capricorn 14 degs. 17 mins. as the longitude of Uranus on the first of January, 827, as seen from the Earth.

For the purpose of determining the effects, if any, due to the presence of a planet in its Aphelion, Perihelion, or Node, the following values are given for the year 1800 A. D.:

Planet.	Aphelion.			Perihelion.			Node.		
	S.	°	′	S.	°	′	S.	°	′
Mercury	8	14	21	2	14	21	1	15	57
Venus	10	8	36	4	8	36	2	14	52
Mars	5	2	23	11	2	23	1	18	1
Jupiter	6	11	8	0	11	8	3	8	24
Saturn	8	29	4	2	29	4	3	21	57
Uranus	11	17	21	5	17	21	2	12	51
Neptune	7	12	22	2	12	22	4	9	35

The longitudes of the Aphelia are increased in 100 years by the following quantities: Neptune, 1° 25′; Uranus, 1° 28′; Saturn, 1° 50′; Jupiter, 1° 35′; Mars, 1° 52′; Venus, 1° 43′; Mercury, 1° 34′. These quantities are additive for years after 1800, and subtractive for years before that epoch.

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In the present state of astronomical science it is not certain that these values are absolutely correct. Calculated from the Tables of Kepler, the differences are only slight, but still sufficient to make considerable error in testing for exact conjunctions or ingresses.

Lilly, who predicted the Great Plague and Fire of London some years previous to the event from the ingress of[Pg 132] the Aphelion of Mars to the sign Virgo, evidently made use of the Rudolphine Tables constructed by Tycho and Kepler, and according to these the ingress took place in 1654, while according to more modern Tables it did not take place until 1672. It is probable, however, that the positions of the Aphelia here given will be sufficiently close for all practical purposes.

A word or two may now be said regarding the periodic conjunctions of the planets.

As will be seen from the periods given, five periods of Jupiter are nearly equal to two of Saturn. It is found that the two planets form their conjunctions every 20 years. Thus there was a conjunction in Virgo in 1861, another in Taurus in 1881, and another in Capricornus in 1901. The next will be in Virgo in 1921. The two planets are thus now forming their successive conjunctions in the Earthly Tripicity; but in 1981 will make their mutation conjunction by falling together in the Airy sign Libra.

Uranus and Jupiter form their conjunctions every 14 years. Thus there was a conjunction in Sagittarius in 1900, and there will be another in Aquarius in 1914, another in Aries in 1928, and so on.

The conjunctions of Neptune with the other major planets are necessarily in terms of the periods of the latter, those of Neptune and Uranus being very infrequent, while those with Jupiter will be proportionately more frequent. For the period of Jupiter is only 12 years, while Neptune remains in the same sign for 15 years. The conjunction of Jupiter and Neptune in Cancer in 1907 will be followed by another in Leo in 1919, and this again by another in Virgo in 1932.

Obviously, if the planets by their transits effect anything whatsoever, the double transit of major planets must have[Pg 133] a correspondingly greater effect. The careful student of Astrology will institute a number of tests in order to find what effects are due to the combined action of the planets when in conjunction at transit, and also when in opposition or quadrature. The chief points to be noticed in connection with the transits of the planets are the Midheaven, Ascendant, and the places of the Sun and Moon, as already mentioned in Chapter II of this section.

The ancients also included the places of the Moon's Nodes, and it is usually found that the transit of the South Node over any of the Significators is attended by unfortunate results.

With these observations as a general guide to the cosmical factors involved in the planetary motions, the reader will be able to take a more intelligent interest in the foundations of his study than is the usual case from the pursuit of the subject by rule-of-thumb methods.

When we come to the consideration of the Moon as a cosmical factor we are face to face with one of the most difficult and evasive problems. For many centuries astronomers grappled with this inconstant factor with small success, and at the present day the problems attaching to the vagaries of lunar motion are in anything but a satisfactory condition. Prior to the time of Ptolemy nothing was known of the Moon except that it had a certain mean motion and formed its syzygies at definite periods, the mean values of which were very closely known. But certainly nothing was known regarding the inequalities of motion which are found to exist. Ptolemy discovered the equation due to the action of the Sun upon the Moon in its orbit. This is called the Evection. Tycho later discovered that a further equation was due to the disturbance caused by the Sun along the vector. Both these equations[Pg 134] were employed by Kepler. But of these, later astronomers have added one after another equation, going so far as to employ the action due to Venus and Jupiter, while ignoring that due to the

action of the other planets upon the Moon. Buckhardt, whose formulae were used in the calculation of the Nautical Almanac for many years, employs no less than 37 equations of the Moon's mean longitude. Indeed, the whole business has become farcical. The fact is that only three of these equations are necessary in order to obtain the Moon's true place in the ecliptic at any time, and for the syzygy only one equation is necessary. The trouble has arisen from the fact that the eccentricity of the Moon's orbit has been wrongly estimated, and most of these equations now employed by astronomers are effectual only in correcting this false estimate. Kepler gives the maximum equation to centre as 4° 59′ 59″, while modern astronomers have given it as 6° 18′ 28″. Neither of these is quite correct, though Kepler is much nearer the truth.

Another problem in connection with the Moon that has puzzled astronomers for a long time and is still in the region of experimental science is what is known as the Secular equation. It is found that by taking the present mean motion of the Moon and applying the various equations, found necessary to bring the calculations into line with observations of the Moon's position in the zodiac, a considerable difference is found to exist between the calculated place of the Moon and its recorded position at the time of ancient eclipses. According to our modern Tables, ancient eclipses happened sooner than they should have done, or, in other words, the Moon was more advanced in its orbit than our Tables require. The inference is that the Moon was formerly moving quicker in a smaller orbit[Pg 135] than now, or conversely, the Moon is now receding and getting farther from the Earth. Consequently its action on the tides must be diminishing, and also its action on the equatorial mass of the Earth, which is considered to be the chief factor in the production of what is called the Precession of the Equinoxes. Yet whereas by one statement the disturbance due to the Moon is diminishing, another statement shows that the Precession of the Equinoxes is increasing! **Voila le debacle.**

All these anomalies and contradictions are due, as I shall show in my new Tables and Thesis, to the importation of false factors into the problem of the Moon's motion, which,

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in fact, is extremely simple, perfectly regular, and affected only by its anomaly or distance from the aphelion and, where the time equation is employed, by the increase of radius. Jupiter and Venus have no more action on the Moon than have Mars and Saturn, in fact none at all, and the only body that has any action upon the lunar orb is the Sun, which it exerts indirectly through its action on the Earth.

These problems need not, however, vex the minds of the student of Astrology. It is sufficient for him that he has the place of the Moon calculated for him in the ephemeris reduced from the Nautical or other official Almanac. It is important, however, that he should know that such problems exist.

Sir Isaac Newton was first led to the subject of Astronomy by his thoroughness and scientific propensity. He studied Astrology, and proceeded to the study of Astronomy the better to understand and deal with the problems that the predictive science presented. For it is to be observed that Astrology in his day was entirely in the hands of astronomers, who calculated their own ephemeri[Pg 136]des and pursued the higher methods of astrological calculation as presented in my "Profnostic Astronomy." Kepler avowed himself to be convinced of the truth of the science of Astrology, and showed himself to be a competent critic as much by his understanding of the astronomical problems involved as by his marvellous forecast of the rise and fall of Wallenstein. Tycho, his colleague and collaborator, also a great astronomical discoverer, was a professed Astrologer, and added to his stipend by the calculation of horoscopes. Astrology is quite a reputable study, and needs but to be emancipated from the service of a horde of half-educated plagiarists and parasites in order to take its place once more among subjects of serious consideration by the learned. Astronomy is interesting, but to be made useful it must find interpretation in terms of our daily life and common needs. It is in this connection that Astrology has played Cinderella since the days of official science. The day is not far off when it will come into its own.

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CHAPTER VII

REVOLUTIONS, ECLIPSES, INGRESSES, ETC.

Beyond the various time measures and indicators mentioned in Section IV, Chapter II, there are others which have a certain reputation among astrological students. The chief of these, and one that has been in vogue for many centuries, is the

Solar Revolution,

or Birthday Figure, as it is sometimes called. It consists in a map of the heavens for the return of the Sun to the exact zodiacal position that it held at birth, and this sidereal revolution is made the basis of an annual forecast of the general trend of affairs in the life of the subject. To find the time of the Sun's return to its own place in the zodiac is, of course, a simple matter of proportion from the ephemeris for the current year. This is effected by comparing the radical or birthplace of the Sun with the longitude of the Sun in the Ephemeris on the anniversary day, which will give the increment more or[Pg 138] less required to be equated. Then with this difference of the two positions of the Sun (a) at birth and (b) at noon of the anniversary, find the diurnal proportional logarithm and subtract from this the logarithm for the Sun's motion in 24 hours. The result will be the logarithm for the hours and minutes from Noon at which the Sun was in the exact position it held at the birth. Thus you have the time of the solar return, and all that is necessary is to erect a horoscope for this time and set the planets in the figure.

Then, if the benefic planets are in elevation and the Lord or Ruler of the Ascendant is well placed and aspected, there will be commensurate results, and a beneficial year may be predicted; but if, on the contrary, the malefic planets are elevated and the ruler of the

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horoscope is badly aspected, the year ensuing will be fraught with many troubles and vexatious events.

But inasmuch as the time-factor is here the return of the Sun to its radical place, chief attention must be paid to the aspects of the Sun, and conclusions agreeable to the nature of the afflicting planets or those that favourably aspect the luminary may be made accordingly.

As regards the time at which events signified by the aspects may be expected to transpire, I have found that they usually occur during the transit of the Sun over the places of the planets in the annual horoscope. Thus a person born in August may have the Sun in the annual horoscope in square aspect to Saturn, the Sun being in Leo and Saturn in Taurus. Then the evil signified by the aspect of Saturn to the Sun would transpire about the date that the Sun passed the opposition of Saturn in the sign Scorpio some time in November, or again in May of the following year when the Sun [Pg 139]was in conjunction with the place of Saturn in the horoscope for the Solar return.

Events that are benefic in nature may be produced from the transit of the Sun over the places of the benefics in the Solar figure, or over the good aspects of the planet which in the annual horoscope gives promise of benefit.

In similar manner the return of the Moon to its own place may be taken as a monthly guide to the nature of ensuing events, but it is to be observed that the Moon’s place cannot be taken with the same degree of accuracy as that of the Sun, owing to the varied acceleration of the Moon from hour to hour. The Nautical Almanac gives this hourly acceleration, so that by means of it the Moon’s longitude can be arrived at with great accuracy for any time of the day, but the cheaper ephemerides do not contain more than the longitude for noon and midnight. The student will find, however, that the general purposes of a Lunar horoscope may be served with sufficient accuracy from this source if chief regard be had to the aspects of the Moon at its return and not to the mundane positions of the planets.

Arguing from analogy, one would suppose that a similar horoscope could be made for the return of any of the planets to their radical places, but until we have a popular publication in which the planets' places are given with a greater degree of accuracy than at present, we cannot pretend to indicate the true time of the revolutions of these bodies.

Another means of prognosis to which some astrologers have attached considerable importance is what is known as

The Synodical Revolution.

This consists of a horoscope set for the time of the Moon's return to the same distance from the Sun that it held at[Pg 140] birth, which distance is called the elongation. This measure is based upon the relative motions of the Sun and Moon in the zodiac after birth. Thus if the mean motion of the Sun for one day be taken as 59′ and that of the Moon as 13° 11′, then the mean elongation of the Moon will be 12° 12′. But the Sun and Moon are both subject to a variation from the mean motion, and thus the elongation of the Moon is an inconstant quantity. The only means of effecting the calculation, therefore, is by reference to the ephemeris for the year of birth. Then, having the Moon's radical elongation, the successive dates at which this elongation is repeated are to be noted, and each of them is accounted as one year of life. Thus for the 20th year of life one must count 19 synods or conjunctions of the Sun and Moon after birth, and thereafter proceed to fix the date after the last synod at which the Moon's elongation is the same as that of birth. This idea seems to give grounds for the ancient belief in effects attaching to the Moon's age. For the Moon's age denotes the distance of the Moon from the last conjunction with the Sun, and if a person was born on the tenth day of the Moon, then every tenth day of the Moon in successive revolutions will be of importance, since the Moon will be in the same relations with the Sun as at birth. The aspects that the Moon bears to the other celestial bodies at these times is held to be a guide to the nature of succeeding events. But more attention is paid to such horoscopes thus calculated wherein the Moon falls on the place of any of the planets at birth.

Ingresses

are of two kinds, mundane and zodiacal. A mundane ingress is made when a planet in the heavens comes to[Pg 141] the cusp of one of the Houses in the horoscope of birth—that is to say, to the degree of the zodiac which held the cusp of such House. Thus if the 8th degree of the sign Aquarius were on the cusp of the 2nd House of the horoscope and Saturn in the heavens made transit of that degree of the zodiac, then the Ingress of Saturn to the 2nd House would be effected and would be followed by a period of considerable financial stress. Similarly with other planets in the horoscope. Each will make its periodical transit through the several Houses of the horoscope of birth, and these will be attended by events in terms of the nature of the planet, the House it transits and its affections at birth.

Zodiacal ingresses are those that are made by the planets into the signs of the zodiac successively, and it is held that a change in the trend of affairs will take place in that department of the life ruled by the House wherein that sign is placed at birth. This, however, appears to be an extension of the former kind of ingress, and should be taken with some reserve. Certainly it will be found that very marked effects are due to the transits of the planets through the Houses of the horoscope, and if the aspects of these planets in the ephemeris are taken into account, it will be found that a very accurate basis for a forecast of the various incidents of individual life is thereby afforded.

In this connection the periodical synods of the planets should be observed, for it is evident that if we ascribe an influence to the transit of Saturn we must set a still more important value upon the transit of that planet when in conjunction or opposition with any other body in the heavens. Thus the planets Mars and Saturn form their conjunctions in successive signs after an interval of about two[Pg 142] years, during which period it may be said that the effects of the last conjunction are in play. Thus Saturn and Mars formed their last conjunction in August, 1911, in the sign Taurus, and, according to the

position of that sign in various horoscopes, effects more or less detrimental and disturbing would be experienced during the course of two years after that date.

Jupiter's period of 12 years will be watched with interest by those who are studying the effects due to its action, for it passes through one sign or one House every year on an average, and therefore constitutes a good chronocrator or time-marker. But Jupiter can effect little for good if at the time of its transit it is afflicted in the heavens by the adverse aspect or conjunction of another planet. Similarly, Saturn or Uranus or Neptune has to be judged according to its condition and aspects at the time of transit or ingress.

Eclipses,

whether of the Sun or Moon, are significant of evil according to their positions and aspects in the horoscope. For if an eclipse of the Sun happens it will afflict male members of the family, and an eclipse of the Moon will denote evil to female members. Eclipses falling in the sign occupying the 10th or 4th Houses will afflict the parents, and those which fall in the 3rd House will similarly affect collateral relatives, such as brothers and sisters, according to the sex indicated.

The effects of eclipses last for eighteen months, and will be great or small according to the magnitude of the eclipse and considerations due to aspects. When falling on the places of benefic planets or those well aspected in the[Pg 143] horoscope, the eclipse will portend good arising out of some catastrophe or bereavement. But when falling on the places of the malefics, or on places in the horoscope that are badly aspected by the planets at birth, they portend nothing but evil.

Falling in other parts of the figure, they are not of such significance, but generally it may be said that eclipses have a detrimental effect on such affairs as are governed by the House wherein the eclipse falls.

It has been said that unless an eclipse is visible in that part of the world where the subject was born, it will have no effect upon his health or fortunes. But this cannot be the case,

for then those planets that are beneath the horizon at the time of birth could with equal reason be exempt from any share in our consideration, whereas, on the contrary, we know full well that in whatever part of the circle the planets may be situated at the moment of birth they will affect the life and fortunes in equal degree, but especially such department of the life as may be ruled by the House a planet occupies.

The following is a list of the visible eclipses that will be witnessed in Great Britain during the next ten years:

1914.—12th March, Moon eclipsed in the third hour of the morning, nearly total.
21st August, the Sun eclipsed about noon, two-thirds of the disc eclipsed. Total in Sweden and Norway.

1916.—9th January, Moon sets in contact with the shadow.
3rd February, the Sun sets about half eclipsed. Total across the Atlantic.
15th July, Moon eclipsed about three-quarters of its disc in the fifth hour of the morning.

1917.—8th January, Moon eclipsed in the eighth hour of the morning, just before sunrise. Total.
4th July, Moon totally eclipsed in the eleventh hour of the evening.
28th December, Moon begins to be eclipsed just before setting.

1919.—7th November, in the twelfth hour at night the Moon is partially eclipsed.

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22nd November, the Sun has one-fifth of its disc obscured near sunset. Annular in the South Atlantic.

1920.—3rd May, Moon totally eclipsed in the second hour of the morning. 10th November, Sun sets half eclipsed.

1921.—8th April, in the ninth hour of the morning the Sun is eclipsed, about five-sixths of the disc being obscured. Annular eclipse in the north. 16th October, the Moon has five-sixths of its disc overshadowed at eleventh hour of the evening.

1922.—28th March, Sun eclipsed in the third hour of the afternoon, about one-sixth being obscured. Annular in Africa.

The years 1805 and 1917 are great eclipse years, for in both those years there are no less than seven eclipses. From like causes we argue like effects, and therefore we may anticipate a great convulsion in the political world during the year 1917 and thereafter. At that time Mars and Saturn will form their conjunction in the sign Leo together with Neptune, and these successive conjunctions of the three major planets cannot fail to produce great[Pg 145] mutations, more especially in those countries that are ruled by the sign Leo.

So far as individual horoscopes are concerned the effects of these conjunctions and the eclipses which fall in the sign Capricornus and Cancer must be judged by the particular

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Houses of the horoscopes in which they occur. The general effects due to any eclipse or conjunction of the larger planets are distributed and find their expression through individual horoscopes, the influence filtrating as it were through a variety of channels for the ultimate purpose of human evolution and government.

Thus by many lines of evidence the patient student may confirm his belief in the influence of the stars in human life, which involves the yet higher concept of the government of humanity by the greater Intelligences according to preordained laws, divine in their origin and cosmical in their expression. To this concept as a final expression of faith and of scientific experience we must eventually submit our beliefs and opinions, and haply our willing compliance.

Transcriber's Note:

This e-text is based on the 1920 edition. Punctuation errors have been tacitly corrected. The Table of Contents has been completed to match the text. Inconsistent hyphenation and spelling (e.g., 'every-day'/'everyday'; 'formulæ'/'formulae') have been retained. Large tables have been split and rearranged.

The following typographical errors have been corrected:

p. 6: 'sublinary' → 'sublunary'; 'towhich' → 'to which'
p. 62: 'Shakspeare' → 'Shakespeare'
p. 107: 'intuite' → 'intuit'
p. 132: 'Sagitarius' → 'Sagittarius'
p. 135: 'Viola' → 'Voila'

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Part three

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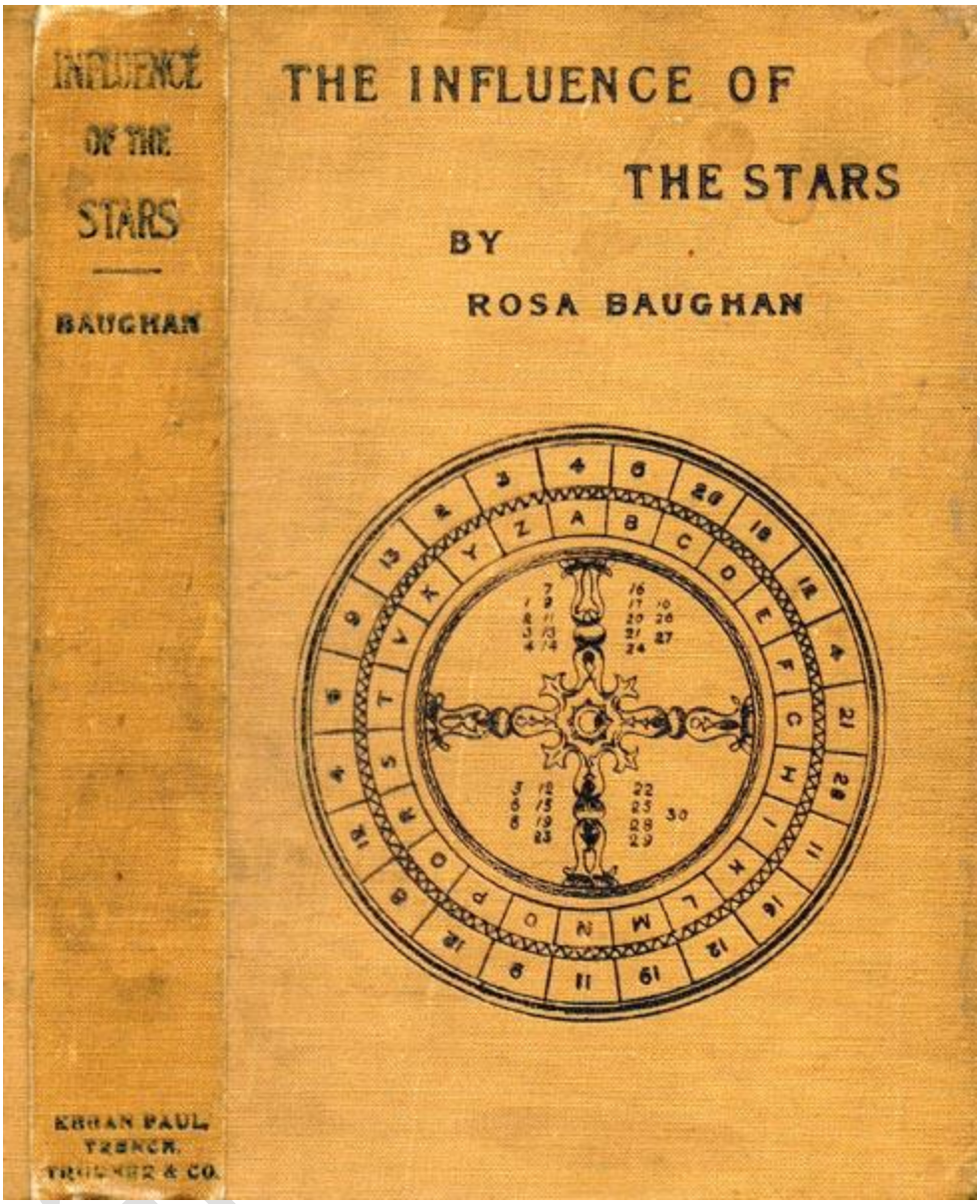

THE INFLUENCE OF THE STARS

PLYMOUTH

WILLIAM BRENDON AND SON

PRINTERS

WHEEL OF PYTHAGORAS. FACSIMILE FROM AN OLD WOODCUT DATE. 1657.

Frontispiece and Cover.

THE INFLUENCE OF THE STARS

A Book of Old World Lore

BY

ROSA BAUGHAN

AUTHOR OF "THE HANDBOOK OF PALMISTRY"; "CHARACTER IN HANDWRITING"; ETC., ETC.

THE COMPLETE ENCYCLOPEDIC GUIDE TO ASTROLOGY

IN THREE PARTS

PART I. ASTROLOGY.
PART II. CHIROMANCY
PART III. PHYSIOGNOMY

TO WHICH ARE ADDED

CHAPTERS ON THE SIGNIFICANCE OF THE MOLES OF THE BODY ASTROLOGICALLY CONSIDERED,

THE MYSTICAL WHEEL OF PYTHAGORAS AND THE METHODS OF WORKING IT

FOURTH EDITION,
REVISED AND ENLARGED BY THE AUTHOR

ILLUSTRATED WITH TEN PLATES

LONDON
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1904

"Ye stars which are the poetry of Heaven!
If, in your bright leaves we read the fate
Of men and empires—'tis to be forgiven,
That in our aspirations to be great,
Our destinies o'erleap this mortal state
And claim a kindred with you; for ye are
A beauty and a mystery and create
In us such love and reverence from afar,

Zaid H. adwan

That Life, Fame, Power, and Fortune have named themselves a star."

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FOREWORD

Of all subjects that have at any time engaged the attention of the world, there is none more ancient than astrology. In the East—where it first arose at a period of very remote antiquity—it still holds sway and in every part of the world (especially among the learned) it reigned supreme until the middle of the seventeenth century. That it not only ruled the daily actions of individuals but swayed the councils of princes, is shown by the records of every nation that has a history (and by none more fully than by that of England); yet the present generation seems never, until quite lately, to have cared to inquire on what basis this belief could have been for so many ages supported. During the past ten years, however—possibly from a reaction growing out of the realism by which we have been so long oppressed—a new interest in these old-world beliefs has sprung up and it is to satisfy that interest that this book (containing the results of many years' study) was written.

Chiromancy and Physiognomy are both based on astrology and are, therefore, quite in place as the second and third parts of a work treating of the influence of the stars. Many of the modern writers on Chiromancy seem disposed to deny its affinity to astrology, with which it is, however, inseparably connected. Dr. Saunders, in the preface to his exhaustive work on Chiromancy and Physiognomy, published in 1671, and dedicated

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to his friend Lilly, the great astrologer, says: "For our more orderly proceeding with the body of this work, it is in the first place necessary to be observed that there are seven planets, named *Stellæ Errantes*—wandering stars—which have each of them its separate character as they are used in astrologie; the which stars have great power over inferior bodies and do, each of them, govern some part or other of man's body and they *especially have their material existence in the hand* and without astrology Chiromancy could not subsist and be subservient to true wisdom."

Now, why, in the face of this and many other equally forcible words among the old-world authorities, do the modern writers try to force their own crude theories upon us? To drag the time-honoured study of Chiromancy into the turmoil of nineteenth-century existence and—by robbing it of its mysticism—to strain it into unison with the realism of modern thought, strikes the earnest student with the same sense of incongruity as would the hanging of a carnival mask over the mystically calm features of an antique statue.

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November, 1904.

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THE
INFLUENCE OF THE STARS

ASTROLOGY

"To doubt the influence of the stars is to doubt the wisdom and providence of God."—TYCHO BRAHE.

CHAPTER I.

That a certain power, derived from æthereal nature, pervades the whole earth, is clearly evident to all. Fire and air are altered by the motions of the æther, and these elements, in their turn, encompassing all inferior matter, vary it, as they themselves are varied, acting equally on earth and water, on plants and animals. The Sun, not only by the change of the seasons, brings to perfection the embryo of animals, the buds of plants and the springs of water, but also, by his daily movement, brings light, heat, moisture, dryness and cold.

The Moon, being of all the heavenly bodies the nearest to earth, has also much influence, and things animate and inanimate sympathise and vary with her. By her changes rivers swell or are reduced, the tides of the sea are ruled by her risings and settings, and animals and plants are influenced as she waxes or wanes. The stars also produce in the ambient [1] many impressions, causing heats, winds and storms, to the influence of which earthly things are subjected. The force of the Sun, however, predominates, because it is more generally distributed; the others either co-operate with

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his power or diminish its effects. The Moon more frequently does this at her first and last quarter; the stars act also in the same way, but at longer intervals and more obscurely than the Moon. From this it follows that not only all bodies which may be already in existence are subjected to the motion of the stars, but also that the impregnation and growth of the seeds from which all bodies proceed are moulded by the quality in the ambient at the time of such impregnation and growth. When, therefore, a person has acquired a thorough knowledge of the stars (not of what they are composed, but of the *influences* they possess), he will be able to predict the mental and physical qualities and the future events in the existence of any one whose actual moment of birth is accurately given to him. But the science of astrology demands great study, a good memory, constant attention to a multitude of different points and much power of deductive judgment; and those persons who undertake to cast horoscopes without possessing these qualities, must necessarily make frequent mistakes in their judgments, which, perhaps, accounts for much of the disbelief which exists as regards the power of astrology; but it is unfair to blame the science for inaccuracies which are only the result of the ignorance of its exponents. No one should attempt to pronounce judgments on the influence of the stars without having first given years of study to the subject; and even then, unless he should have been born under certain influences, [2] he will never become a proficient astrologer.

The practice of observing the stars began in Egypt in the reign of Ammon (about a thousand years before the Christian era), and was spread by conquest in the reign of his successor into the other parts of Africa, Asia, and Europe; but it appears to have been taught in the earliest ages by oral tradition only, for there is no good evidence of its having been reduced to written rules before some years after the first century of the Christian era, when Claudius Ptolemy (who was born and educated in Alexandria) produced a work called *Tetra-biblos*, or *Quadripartite*, being four books of the influences of the stars. In this treatise (translated into English by John Whalley—

Professor of Astrology—in the year of 1786) Ptolemy seems to have collected all that which appeared to him of importance in the science. Another translation of the *Tetra-biblos*, rendered into English from the Greek paraphrase of that work by Proclus, was made in 1822 by J. M. Ashmand and this is, by most people, preferred to the translation made by Whalley. Somewhere between 1647 and 1657, Placidus di Titus, a Spanish monk, published a system of astrology, founded, to a great extent, upon Ptolemy's calculations. This work was printed in Latin and is called the *Primum Mobile*, or *First Mover*, and was translated by John Cooper in 1816; other translations have appeared, but his is the best among them.

The planetary orbs, which the ancients recognised as having the most powerful influence, were seven in number (now known under the Latin names of the principal deities of the heathen mythology), viz.: Jupiter, Saturn, the Sun, Mercury, Venus, Mars and the Moon.

It may be objected that science has long since revealed to us many more planets than the seven known to the ancients; but, in considering a study so mystical as that of astrology, it is better to adhere to the theories of the old-world writers. In the earliest ages almost all the inhabitants of the earth led pastoral lives—were, in fact, merely shepherds—but amongst these shepherds there naturally arose, from time to time, men of superior intelligence, whose imaginations (purified and strengthened by solitude and the constant communion with Nature which grew out of that solitude) led them to the study of those distant lights which they saw, night after night, appear and disappear in the wide expanse of the heavens above them. Of purer lives and more impressionable than we moderns, they were necessarily more open to the influences of nature; and all their thoughts being given to the study of the mysteries by which they felt themselves surrounded, their intuitive perception is likely to be a safer guide on mystical subjects than the scientific conjectures of our day. Besides, as the results produced by their methods were astoundingly correct, why should we imagine ourselves capable of

bettering their theories? Jupiter, Saturn, Mars and Mercury are *still* the most important planets, whilst the Moon (though so small) has a more subtle influence in consequence of her nearness to us; whilst of the Sun's power over us and the whole creation there can, of course, be no question. Each of these seven planets is in the ascendant once during the space of the twenty-four hours forming the day and night; and according to the junction of two or more planets under which a person is born, his outward appearance, character and fate, will be influenced. The sign of the zodiac, too, under which a child comes into the world, possesses a power to produce a particular form of body and mental inclination, always, however, *subject to the influence* of the seven planets.

It must also be borne in mind that the planets dominating the lives of both parents would, to a certain extent, have an influence not only during the pre-natal period of our existence, but also in arresting or hurrying forward the moment of our advent into life. The father's influence is strong at the moment of conception; the mother's during the whole period of pre-natal existence. In this way we can account for the resemblance between parents and children, and also for the physical and mental qualities which we see constantly reproduced through a long line of ancestry. It is rarely that one planet is the sole influence of a life, for the child at birth may, and more generally does, receive influences from several planets, and some not those of the father or mother; and thus we can account for the innumerable differences of mind and body to be found among members of the same family.

For the benefit of those who object that there is too great a leaning to what they would call "the dangerous doctrine of fatalism" in these old-world beliefs, it may be well to quote a few reassuring words from a very able and voluminous writer on these subjects, Dr. Richard Saunders, who modestly styles himself on the title-page of his learned work (published in 1671) student in astrology and physic. "The stars," he says, "have such an influential power over us that we act by them and, though *they are but second causes*,

their influences do so necessitate us that we cannot avoid their fatality, *unless* we have recourse to the First Cause which governs this all." In other words, though the stars influence us, God rules the stars.

CHAPTER II.

THE ALPHABET OF ASTROLOGY

The Science of Astrology consists of four branches, namely, *Mundane Astrology*, which is the art of foreseeing, by the aspect of the stars, at certain periods, the events likely to happen to nations, such as pestilences, wars, inundations and earthquakes; *Atmospherical Astrology*, which is the art of foreseeing, by the positions of the heavenly bodies, the quality of the weather at any particular time or place; *the Casting of Nativities*, or the art of foretelling, from the position of the stars at the moment of birth, the fate and character of the native; and *Horary Astrology*, or the art of foreseeing, by the positions of the heavens at the moment, the result of any business or circumstance.

As the two former branches are treated in the astrological almanacks issued every year by Zadkiel, Raphael, Orion, and others, it is needless to go into them; but as the casting of nativities and the answering of horary questions require individual treatment, the working of these two branches of astrology (*after the ancient methods*) shall be described as clearly as possible.

Before the student can do anything in astrology he must master its alphabet—that is, he must make himself thoroughly acquainted with the symbols used to represent the planets, the signs of the zodiac and the aspects.

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The planets recognised by the ancient astrologers are, as we have seen, seven in number, and are as follows, with their symbols:—Saturn, ♄ ; Jupiter, ♃ ; Mars, ♂ ; Sol, ☉ ; Venus, ♀ ; Mercury, ☿ ; Luna, ☽ .

There are also the Dragon's Head, thus symbolised, ☊; and the Dragon's Tail, ☋. These are neither planets nor signs of the zodiac, nor constellations, but are only the nodes or points where the ecliptic is crossed by the Moon. One of these points looks northward, where the Moon begins her northern latitude, and the other points southward, where she commences her south latitude. The head of the Dragon is considered of a benevolent nature; the tail of the Dragon is of evil tendency.

There are also the twelve signs of the zodiac, which are as follows, with their symbols:—

NORTHERN.		SOUTHERN.	
♈	Aries	♎	Libra
♉	Taurus	♏	Scorpio
♊	Gemini	♐	Sagittarius
♋	Cancer	♑	Capricorn
♌	Leo	♒	Aquarius
♍	Virgo	♓	Pisces

Through these twelve signs the planets continually move, and are ever in one or other of them.

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They are divided into *north* and *south*. The first six, from Aries to Virgo, are *northern*; the latter six, from Libra to Pisces, are *southern*; this is because the Sun and planets when in the first six are north of the equator, and when in the last six they are south of that line.

Each point of the zodiac rises and sets once every twenty-four hours, occasioned by the earth's revolution on its axis once every day; therefore, when any given point is *rising*, the opposite point must be *setting*. [3]

As the zodiac consists of 360 degrees from the first point of Aries until we come to that point again, and as these are divided into twelve portions or signs, they must consist of 30 degrees each.

The aspects are five in number; they represent certain positions which the planets bear to each other as they move through the signs of the zodiac; they are as follows, with their symbols:—

☌ Conjunction, when two planets are in the same place, viz., in same degree of the same sign.

⚹ Sextile, when they are 60 degrees or two signs apart.

□ Square, when they are 90 degrees or three signs apart.

△ Trine, when they are 120 degrees or four signs apart.

☍ Opposition, when they are 180 degrees or six signs asunder.

The conjunction (☌) is rather a position than an aspect, as planets can hardly be said to aspect each other when they are in the same place. When Saturn is in the first degree of Aries, and any planet in the same degree of that sign, they are said to be in conjunction; this is good or evil, according to the nature of the planets thus posited.

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The Trine (△) is the most powerful of all the good aspects.

The Sextile (⚹) is favourable.

The Square (□) is evil.

The Opposition (☌) is also very evil.

There are several other aspects (sometimes called the "modern aspects") invented by Kepler; but as they only appear to complicate what is at best a very intricate study, it is best to ignore them and adhere in this, as in the matter of the planets, to the old methods.

CHAPTER III.

CONCERNING THE SIGNS OF THE ZODIAC

The zodiac is a band or belt, measuring about 14 degrees in breadth, but, as Venus sometimes appears to have more than her real latitude, it is more correctly considered to be 18 degrees in breadth. The *ecliptic*, or path of the Sun, passes exactly through the centre of the zodiac, longitudinally.

The ancients divided the zodiac into *ten signs*—Libra being omitted altogether, Virgo and Scorpio being merged into one, thus: Virgo-Scorpio. This accounts for the similarity of their symbols, ♍♏.

Ptolemy divides the zodiac into twelve equal parts, of 30 degrees each. He says: "The beginning of the whole zodiacal circle (which in its nature as a circle can have no other beginning or end capable of being determined) is, therefore, assumed to be the sign Aries, which commences at the vernal equinox in March."

One of the many objections urged against Ptolemy's system of astrology is that the signs are continually moving from their positions; but Ptolemy seems to have been aware of this motion of the signs, and has met this objection by what he says in the twenty-fifth chapter of the first book of the *Tetra-biblos*, where he makes it clear that the respective influences he ascribes to the twelve signs were considered by him to belong rather to the *places* they occupied in the ambient than to the stars of which they are composed; and he especially speaks of the *ambient* as producing the effects attributed to the respective signs of the zodiac when in the ascendant in a nativity; thus his astrology is just as applicable to modern astronomy as it was to his own.

The signs have been divided into four *triplicities*, thus: *fiery* ♈, ♌, ♐; *earthy*, ♉, ♍, ♑; *airy*, ♊, ♎, ♒; and *watery*, ♋, ♏, ♓.

The *bicorporal*, or double-bodied, signs are ♊, ♓, and the first half of ♐. The *fruitful* signs are ♋, ♏, ♓; the barren signs are ♊, ♌, and ♑.

These descriptions are useful in showing the modifications brought to bear (by the sign ascending) on the planet's influence. But, when no planets are in or near the ascendant at birth, the following descriptions of the temperament and form of body produced by each sign ascending at birth should be used.

Aries (♈) is a hot and fiery sign and produces a lean body, spare and strong, large bones, grey eyes, with a quick glance and sandy or red-coloured hair. The temper is violent. It governs the head and face; its colour is white.

Taurus (♉) differs greatly, in its effects, from the preceding sign; it is cold and dry, and gives a broad brow and thick lips. A person born under it is melancholy and slow

to anger but, when roused, furious and difficult to be appeased. It governs the neck and throat; its colour is red.

Gemini (♊) is in nature hot and moist and produces a person of straight, tall body, sanguine complexion, brilliant eyes and light brown hair. The temperament of those born under Gemini is lively and the understanding good. This sign governs the arms and shoulders; its colours are red and white.

Cancer (♋) is by nature cold and moist; it produces a native fair and pale, short in stature, with a round face, sand-coloured brown hair and grey eyes. Those born under it are phlegmatic, indolent and gentle tempered. Women born under this sign generally have many children. It governs the breast and stomach; its colours are green and russet-brown.

Leo (♌) is a fiery, hot and dry sign. When it rises at birth without any planet being near the ascendant, the native will be of tall stature, with yellow hair, ruddy complexion and oval face, and he will have a quick glance and a strong voice. It governs the heart, the back and the neck; its colours are red and green.

Virgo (♍) is an earthy, cold, barren, feminine sign. When it ascends, it shows a well-formed body, slender and tall, straight, dark-brown hair and a round face. The mind of the native is ingenious, but rather inconstant. It governs the belly; its colour is black speckled with blue.

Libra (♎) is an aërial, sanguine, masculine, hot and moist sign. Rising at birth it produces a well-made body, with long limbs, an oval and beautiful face, sanguine complexion, straight flaxen hair and grey eyes. Those born under it are courteous, just and honourable. It governs the loins; and the colours under its rule are black, crimson and tawny.

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Scorpio ( ) is a moist, phlegmatic, feminine sign. It gives a strong, corpulent body, low stature, thick legs, hair growing low on the forehead and heavy eyebrows. Those born under this sign are reserved, thoughtful, subtle and malicious. It governs the lower parts of the body; the colour under its rule is brown.

Sagittarius ( ) is a fiery, masculine sign. The person born under its rule is handsome, with a rather long face and features, chestnut hair, inclined to baldness and ruddy complexion; the body strong and active. Those born under this sign are fond of field sports, are good riders, and are lovers of animals. They are kindly, generous and careless of danger. This sign governs the thighs and hips, and rules yellow and green.

Capricorn ( ) is an earthy, cold, dry, feminine sign. It produces a person of slender stature, with a long neck, narrow chest and dark hair. The mind is quick, witty and subtle. It governs the knees and hams and, in colours, it rules black or dark brown.

Aquarius ( ) is an airy, moist, masculine sign. In a nativity where no planets are in or near the ascendant, it would produce a person of a well-set, strong body, long face and delicate complexion, with brown hair. It governs the legs and ankles and rules the sky-colour or blue.

Pisces ( ) is a watery, cold and feminine sign. It produces a person of short stature and fleshy body, with a rather stooping gait. Those born under its influence are indolent and phlegmatic. It governs the feet and toes and presides over the pure white colour. It is needful to remember the colours belonging to the signs, as they are especially useful in horary questions.

CHAPTER IV.

OF THE NATURES OF THE SEVEN PLANETS AND OF THEIR ESSENTIAL AND ACCIDENTAL DIGNITIES

Of the seven planets Jupiter and Venus, because of the heat and moisture predominant in them, are considered by the ancients as benefics or causers of good. The Moon is so considered for the same reasons, though in a less degree.

Saturn and Mars are causers of evil or malefic; the first from his excess of cold, and the other from his excess of heat. The Sun and Mercury are deemed of common influence—that is, either of good or evil, according to the planets with which they are connected.

The planets have particular familiarity with certain places in the zodiac by means of parts designated as their houses, and also by their *triplicities*, *exaltations* and *terms*.

The nature of their familiarity by *houses* is as follows:—

Cancer and Leo are the most northerly of all the twelve signs; they approach nearer than the other signs to the zenith of this part of the earth, and thereby cause warmth and heat; they are consequently appropriated as houses for the two principal and greater luminaries; Leo for the Sun, as being masculine; and Cancer for the Moon, as being feminine.

Saturn, since he is cold and inimical to heat, moving also in a superior orbit most remote from the luminaries, occupies the signs opposite to Cancer and Leo; these are Aquarius and Capricorn, and they are assigned to him in consideration of their cold and wintry nature.

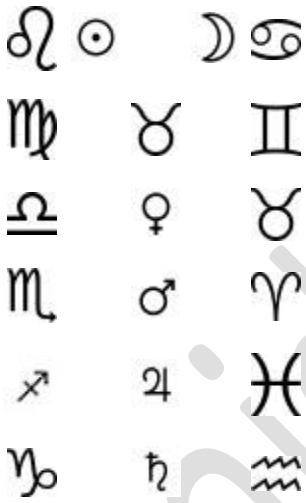
Jupiter has a favourable temperament, and is situated beneath the sphere of Saturn; he, therefore, occupies the next two signs, Sagittarius and Pisces.

Mars is dry in nature and beneath the sphere of Jupiter; he takes the next two signs, of a nature similar to his own, viz., Aries and Scorpio, whose relative distances from the houses of the luminaries are injurious and discordant.

Venus, possessing a favourable temperament, and, placed beneath the sphere of Mars, takes the next two signs, Taurus and Libra. These are of a fruitful nature and preserve harmony by the sextile distance; this planet is never more than two signs distant from the Sun.

Mercury never has greater distance from the Sun than the space of one sign, and is beneath all the other planets; hence he is nearest to both luminaries, and the remaining two signs, Gemini and Virgo, are allotted to him.

The "houses" of the planets are readily shown by the following table. It is exactly the same as that found in the mummy-case of the Archon of Thebes, in ancient Egypt, as may be seen at the British Museum:



It will be seen, at once, from this table that the Sun and Moon have each only one house assigned them. All planets are most powerful in that sign which constitutes one of their houses. Planets receive detriment in the signs opposite to those of their houses. Thus, Saturn would receive detriment in Cancer and Leo, which are the signs opposite to his houses, Capricornus and Aquarius. There are some signs in which the planets are found to be very powerful, though not to the same extent as when in their own houses; these are called the "exaltations" of the planets, and the signs opposite to these are those in which they receive their "fall" when they are considered to be weak in power. Saturn

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has his exaltation in Libra; his "fall" would therefore be in Aries. He governs the airy triplicity, which is composed of the signs Gemini, Libra and Aquarius by day, and in all the twelve signs he has these degrees (zodiacal signs) allotted him by Ptolemy for his Terms:

In Aries	27, 28, 29, 30.
In Taurus	23, 24, 25, 26.
In Gemini	22, 23, 24, 25.
In Cancer	28, 29, 30.
In Leo	1, 2, 3, 4, 5, 6.
In Virgo	19, 20, 21, 22, 23, 24.
In Libra	1, 2, 3, 4, 5, 6.
In Scorpio	28, 29, 30.
In Sagittarius	21, 22, 23, 24, 25.
In Capricornus	26, 27, 28, 29, 30.
In Aquarius	1, 2, 3, 4, 5, 6.
In Pisces	27, 28, 29, 30.

The meaning of which is that if Saturn should rise in any of these degrees it is a sign that he is not void of essential dignities; or, if he is posited in any of the following degrees (which he is allowed for his Face or Decanate) he is still not devoid of dignities. This is to be understood of all the planets.

Saturn is allotted for his Face these degrees:

In Taurus	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Leo	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Libra	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

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In Sagittarius	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Pisces	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Jupiter has his exaltation in Cancer and his fall in Capricornus. He rules the fiery triplicity, Aries, Leo and Sagittarius, by night.

He has these degrees allotted for his Terms:

In Aries	1, 2, 3, 4, 5, 6.
In Taurus	16, 17, 18, 19, 20, 21, 22.
In Gemini	8, 9, 10, 11, 12, 13, 14.
In Cancer	7, 8, 9, 10, 11, 12, 13.
In Leo	20, 21, 22, 23, 24, 25.
In Virgo	14, 15, 16, 17, 18.
In Libra	12, 13, 14, 15, 16, 17, 18, 19.
In Scorpio	7, 8, 9, 10, 11, 12, 13, 14.
In Sagittarius	1, 2, 3, 4, 5, 6, 7, 8.
In Capricornus	13, 14, 15, 16, 17, 18, 19.
In Aquarius	21, 22, 23, 24, 25.
In Pisces	9, 10, 11, 12, 13, 14.

He has for his Face, or Decanate:

Of Gemini	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
Of Leo	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
Of Libra	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
Of Capricornus	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
Of Pisces	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

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Mars has Aries for his day-house and Scorpio for his night-house. He is exalted in Capricornus, and has his fall in Cancer.

He governs the watery Triplicity, viz., Cancer, Scorpio and Pisces, and he has these degrees in each sign for his Terms:

In Aries	22, 23, 24, 25, 26.
In Taurus	27, 28, 29, 30.
In Gemini	26, 27, 28, 29, 30.
In Cancer	1, 2, 3, 4, 5, 6.
In Leo	26, 27, 28, 29, 30.
In Virgo	25, 26, 27, 28, 29, 30.
In Scorpio	1, 2, 3, 4, 5, 6.
In Aquarius	26, 27, 28, 29, 30.
In Pisces	21, 22, 23, 24, 25, 26.

He has allotted to him for his Face these degrees:

In Aries	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Gemini	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Leo	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Virgo	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Pisces	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.

The Sun rules the fiery Triplicity—Aries, Leo and Sagittarius—by day. He is exalted in the sign of Aries, and receives his fall in Libra.

He has no degrees admitted him for his Terms, but in the twelve signs he has the following degrees for his Face:

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In Aries	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Gemini	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Virgo	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Scorpio	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Capricornus	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.

Venus governs the earthy Triplicity—Taurus, Virgo and Capricornus—by day. She is exalted in Pisces, and has her fall in Virgo. She has the following degrees for her Terms:

In Aries	7, 8, 9, 10, 11, 12, 13, 14.
In Taurus	1, 2, 3, 4, 5, 6, 7, 8.
In Gemini	15, 16, 17, 18, 19. 20.
In Cancer	21, 22, 23, 24, 25, 26, 27.
In Leo	14, 15, 16, 17, 18, 19.
In Virgo	8, 9, 10, 11, 12, 13.
In Libra	7, 8, 9, 10, 11.
In Scorpio	15, 16, 17, 18, 19, 20, 21.
In Sagittarius	9, 10, 11, 12, 13, 14.
In Capricornus	1, 2, 3, 4, 5, 6.
In Aquarius	13, 14, 15, 16, 17, 18, 19, 20.
In Pisces	1, 2, 3, 4, 5, 6, 7, 8.

The following degrees are allowed for her Face:

In Aries	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Cancer	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Virgo	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

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In Scorpio	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Pisces	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Mercury governs the airy Triplicity, viz., Gemini, Libra and Aquarius, by night. He has his exaltation in Virgo, and his fall in Pisces. He has the following degrees for his Terms:

In Aries	15, 16, 17, 18, 19, 20, 21.
In Taurus	9, 10, 11, 12, 13, 14, 15.
In Gemini	1, 2, 3, 4, 5, 6, 7.
In Cancer	14, 15, 16, 17, 18, 19, 20.
In Leo	7, 8, 9, 10, 11, 12, 13.
In Virgo	1, 2, 3, 4, 5, 6, 7.
In Libra	20, 21, 22, 23, 24.
In Scorpio	22, 23, 24, 25, 26, 27.
In Sagittarius	15, 16, 17, 18, 19, 20.
In Capricornus	7, 8, 9, 10, 11, 12.
In Pisces	15, 16, 17, 18, 19, 20.

These degrees are assigned him for his Face:

In Taurus	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Cancer	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Virgo	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Sagittarius	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Aquarius	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

The Moon governs the earthy Triplicity, viz., Taurus, Virgo and Capricornus, by night.

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She is exalted in Taurus, and has her fall in Scorpio. The Sun and the Moon have no terms assigned them.

In the twelve signs she has these degrees assigned her for her Face:

In Taurus	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Cancer	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
In Libra	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
In Sagittarius	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
In Aquarius	21, 22, 23, 24, 25, 26, 27, 28, 29, 30.

A planet in his fall is very weak in his influence. The Houses count first in dignity, then the Exaltation; afterwards the Triplicity, the Terms, and the Faces.

The meaning of this is, if a planet is in any of the signs we call his house or houses, he is essentially strong, and he is allowed five dignities.

If he is in the sign in which he is said to be exalted, he is allowed four dignities.

If he should be placed in any of the signs allowed him for his Triplicity, he is allowed three dignities.

If in any of the degrees in the signs which are given as his Terms, he has two dignities.

If in any of the degrees of the sign given to him as his Face, he is allowed one essential dignity. Accidental dignities are when a planet is swift in motion, angular or in sextile aspect with Jupiter or Venus.

There was a great difference between the Arabian, Indian, and Greek methods in the disposing of the degrees of the sign to each planet until the time of Ptolemy. Since then almost all astrologers followed the method he left, which is that which has been given in this chapter.

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CHAPTER V.

OF THE INFLUENCES OF THE SEVEN PLANETS

The planet Saturn is the most remote of the seven planetary orbs recognised by the ancient writers on astrology. He is of a pale ash colour, slow in motion, only finishing his course through the twelve signs of the zodiac in 29 years and about 157 days. His greatest north latitude from the ecliptic is 2 degrees 48 minutes; his south latitude is 2 degrees 49 minutes.

Those born with this planet well-dignified [4] are studious, grave, economical, prudent, patient and in all their actions sober and somewhat austere. They are not much given to the love of women, but they are persons of much depth of feeling, and, when they do love, they are very constant. They are given to the study of occult matters, [5] and are of a melancholic, suspicious and jealous temperament. In person *when well-dignified* Saturn gives a rather tall stature and long limbs. The hair is dark, the eyebrows much marked and generally meeting between the eyes, which are dark brown, deep set and close together. The nose is long and generally somewhat bent over the lips and the under jaw slightly protrudes. The complexion is sallow, the ears large and the hands and feet are generally long, but not fleshy.

Those born under the potent aspect of Saturn are generally slow of speech and their voices are harsh; when Saturn rises in a horoscope *devoid of dignities*, the native is envious, covetous, malicious, subtle, untruthful and of a discontented disposition. In person frequently deformed, with long and irregular features, the eyes and hair dark and the skin yellow and harsh.

In man's body this planet rules the spleen, the right ear, the lips and the teeth. In illness he gives ague, palsy, ruptures (especially should he rule in the sign of Scorpio),

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jaundice, toothache and all affections of the sight, of the ear, of the teeth and jaws and of the legs.

The herbs he governs are the hemlock, hellebore, burdock, sage, henbane, rue, nightshade and mandrake.

The trees under his rule are the willow, the yew, the cypress, the box-tree and the pine.

The beasts he governs are the elephant, the wolf, the bear, the dog,[6] the basilisk, the crocodile, the scorpion, the serpent, the rat, the mouse and all manner of creeping things; among birds, the crow, the cuckoo, the raven, the owl and the bat.

Of fish he rules the eel, the tortoise and all shell fish.

The minerals he governs are lead and the dross of all metals.

His stones are jet, onyx and all dark stones which are incapable of polish. The colour he rules is black.

He rules Saturday—the first hour after sunrise, and the eighth hour of the same day. His number is 55. In gathering the herbs under his rule the ancients were particular to do so in his hours, as this rendered the medicament more powerful. This is to be observed regarding the herbs ruled by all the planets.

Saturn's orb is nine degrees before and after any aspect; that is, his influence begins to operate when either he applies to any planet or it applies to him within nine degrees of his perfect aspect, and his influence continues in force until he is separated nine degrees from the aspect. His angel is Cassiel. His friends are Jupiter, Venus, Mercury and the Moon; his enemies are Mars and the Sun.

Jupiter is the next planet below Saturn and is of a bright, clear, azure colour. He much exceeds Saturn in motion, as he finishes his course through the twelve signs in twelve years. His greatest north latitude is 1 degree 38 minutes, and his greatest south latitude

1 degree 40 minutes. When he rises at birth well-dignified he gives an erect, tall stature, sanguine complexion, oval face, large grey eyes, thick brown hair, full lips and good teeth. In temperament those born under the good influence of this planet are honourable, generous and hospitable, but loving material pleasures, kind and affectionate to wife and family, charitable, desiring to be well thought of and hating all mean and sordid actions. The voices of those born under Jupiter are clear and sonorous. When this planet rises *devoid of dignities* the native will be gluttonous, profligate, vain, and boastful, of mean abilities and shallow understanding, easily seduced to extravagance and a tyrant to those of his family and household.

In man's body he rules the lungs and the blood, and of diseases he gives apoplexy, gout, inflammation of the lungs, pleurisy and all illnesses proceeding from corruption of the blood.

The herbs he governs are cloves, mace, nutmeg, gilliflower, marjoram, mint, borage and saffron.

Of trees, he rules the mulberry, the olive, the vine, the fig, the beech and the pear-tree.

Of beasts, the sheep, the hart, the ox and all those animals that are useful to man.

Of birds, the stork, the snipe, the lark, the eagle, the pheasant, the partridge and the peacock.

Of fishes, the whale, the dolphin and the sword-fish.

His metal is tin.

His stones are the sapphire, the amethyst and the emerald.

Of colours he rules red mixed with green.

His day is Thursday and he rules the first hour after sunrise and the eighth hour. His number is 78.

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His orb is 9 degrees before and after any aspect.

All the planets except Mars are his friends.

His angel is Zadkiel.

Mars in order succeeds Jupiter. He appears of a red colour, and finishes his course through the zodiac in 1 year 321 days. His greatest north latitude is 4 degrees 31 minutes. His south latitude is 6 degrees 47 minutes. When he is well-dignified in a horoscope, the native is courageous, confident, loving war and all that belongs to it, jealous of honour, hot-tempered and a great lover of field-sports. In person he will be of middle stature, broad-shouldered and with big bones; the complexion of a red fairness; the hair is crisp or curly and also red, but this varies slightly according to the sign rising at birth; in watery signs the hair is not so red, and in earthy signs it is more chestnut; the eyes are grey and have a bold, fixed glance like that of a hawk.

When he is ill-dignified at birth, the native is turbulent, cruel, boastful, a promoter of sedition, ungracious in manners and unscrupulous in his actions, with no fear of either God or man. He rules the head and face, the gall, the throat and intestines; and the diseases he gives are fevers, carbuncles, smallpox, all throat affections, all hurts to the head and face (especially by iron), and all diseases which arise from too much heat of blood; also accidents from four-footed beasts.

The herbs over which he rules are the nettle, the thistle, onions, scammony, garlic, horehound, cardamons, mustard and all herbs giving heat.

Of trees, all those which are of a prickly nature, such as the holly, the thorn and the chestnut.

Of beasts, all fierce animals—the tiger, the panther, the wolf, the horse, the leopard, the wild ass and the bear.

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The dog is sometimes assigned to Mars on account of its courage and combativeness. This delightful animal is probably ruled by both Saturn and Mars; the former giving it the quality of fidelity which it possesses in a degree beyond all other creatures.

Of fish, the pike, the barbel and the sword-fish.

Of birds, the hawk, the vulture, the kite, the eagle, the magpie and the cock, all of which are combative.

The metal he rules is iron. The colour he rules is red.

The stones, the carbuncle, the ruby and the blood-stone.

His orb is 7 degrees before and after any aspect.

He governs Tuesday—the first hour after sunrise, and the eighth. His number is 39.

His friend among the planets is Venus, all the others are his enemies.

His angel is Samael.

The Sun passes through all the twelve signs of the zodiac in one year and a few hours over the 365 days which constitute the year. He has no latitude.

When the Sun rises at a birth well-dignified, the native is of an honourable disposition, but always desiring to rule, loving pomp, yet affable, speaking with gravity and without too many words and possessing much self-reliance and dignity of manner. In person he will be tall, well made, with golden hair, yellowish skin, large and piercing eyes and long, straight and well-formed features.

When ill-aspected the native is arrogant, boastful, a spendthrift, proud, yet in poverty hanging on other men's charity, very loquacious, restless and without judgment.

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He governs the heart, the brain, the right eye and the arms; and the diseases he causes are all illnesses of the heart, such as swoons, palpitations, cramps, also diseases of the mouth, the brain, and the eyes.

Of colours he rules the yellow and orange colour.

The plants subject to the Sun are all those of pungent odours, such as the marigold, heliotrope, rosemary, balsam, peony, spikenard, musk, St. John's wort, and ginger.

Of trees he rules the palm, the laurel, the cedar, the orange-tree and the citron-tree.

Of beasts, the lion, the ram, the goat.

Of birds, the eagle, the cock, the buzzard.

Of fish, the star-fish, the crab-fish and the sea-fox.

He governs Sunday. His number is 34.

Of metals, gold.

Of colours he rules the yellow.

Of stones, the topaz, amber, chrysolite and all yellow stones.

His orb is 15 degrees before any aspect, and as many after separation.

His friends are all the planets except Saturn and Mars.

His angel is Michael.

After the Sun the planet Venus succeeds in order; she is of a bright shining colour. Her greatest north or south latitude is 2 degrees and 2 minutes. When she rises well-dignified in a nativity the person born will be of middle stature, rather inclining to shortness, with a beautiful complexion, light brown hair, the eyes large, of a blue or grey colour and with a slow and rather languishing movement, red lips, and dimples in the cheeks, chin

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and about the mouth. In disposition, gracious, very tender, inclined to love-making; easy of belief and not given to labour about anything; fond of music, plays, and all sorts of merry-makings.

When ill-dignified at birth Venus causes the native to be over-fat, with thick lips, and much flesh about the chin and cheeks. In disposition, sensual, riotous and immoral.

Venus governs the lower parts of the body, and the illnesses she gives are cancer and all affections of the womb.

All the herbs she governs have a sweet smell and, generally, have smooth leaves and white flowers, such as the lily, both white and yellow, and the lily of the valley, also the water lily, the myrtle, maidenhair, violets and roses.

The trees she rules are the walnut, the almond, the apple-tree, the box-tree, the sycamore, the ash and myrtle.

Of beasts, the hart, the rabbit, the calf and all small cattle.

Of birds, the dove, the sparrow, the nightingale, the swan, the pelican and the swallow.

Her metal is copper.

Her stones, white and red coral, rubies, the beryl, turquoise and lapis lazuli, because it expels melancholy.

Her colours are white and purple.

Her orb is 7 degrees before and after any aspect.

Her day of the week is Friday, of which she rules the first and eighth hour after sunrise. Her number is 45.

Her friends are all the planets, but Saturn is the least sympathetic to her.

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Her angel is Anael.

Mercury is of a soft silver colour. His greatest north latitude is 3 degrees 33 minutes. His greatest south latitude is 3 degrees 33 minutes.

When he rises well-dignified at a birth the native is a person of subtle intellect, an excellent logician, and possessing much eloquence in his speech; sharp and witty, of admirable memory, curious in occult knowledge, given to divination, and, if he should turn his attention to trade, no man would exceed him in the invention of new ways to gain wealth.

In person, when Mercury rises well-dignified, the native is of rather small stature, but elegantly formed, very active and supple in his limbs, and with long arms; he will have a long, narrow face, a high forehead, rather swelling at the temples, grey eyes with brown spots in them, delicate mouth, straight eyebrows, a skin of a pale yellow or olive colour, the hair of a red-brown, commonly called auburn.

When ill-dignified at birth Mercury gives a person of very small stature, with small, insignificant features and very small and quickly-moving eyes; and in character he is shifty, a boaster, foolishly loquacious and a great liar.

He rules the liver, the tongue and the nerves, and the illnesses he gives are epilepsy, giddiness, dry cough, any affection of the tongue, and all nervous affections.

The herbs attributed to him are generally those having a subtle smell, and having effect on the tongue, brain, lungs, or memory; they are vervain, adder's-tongue, aniseed, dragon-wort, and the reed.

The trees are the elder and the filbert-tree.

The animals are the squirrel, the weasel, the spider, the greyhound, the fox, the ape and all cunning and quickly-moving creatures.

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The birds, the parrot, the magpie, the crane, the linnet and the swallow.

Of fish, the jack-fish and the mullet.

His metal is quicksilver.

His stones all those of divers colours, white and red carnelian and marcasite, or fire-stone.

In colours he rules azure, and all light blue colours.

His orb is 7 degrees before and after any aspect.

He governs Wednesday—the first hour and the eighth after sunrise. His number is 114. The Moon, Venus, Jupiter, the Sun and Saturn are his friends; Mars is his enemy.

His angel is Raphael.

The Moon is the nearest to the earth of all the seven planets. She finishes her course through the whole twelve signs in 27 days 7 hours and 36 seconds. Her greatest north latitude is 5 degrees and about 17 minutes, her greatest south latitude 5 degrees and 12 minutes.

When she rises well-placed in a horoscope, she signifies a person of soft and gentle manners, timid, imaginative, loving pleasure and ease, yet fond of moving from place to place, rather capricious, but of a poetic and romantic turn of mind. In person, those born under good aspects of the Moon are of middle height, with a round head and face, pale, soft skin, large light eyes, usually one a little larger than the other. The whole body inclined to be fleshy, the lips full, and the hair of a dull, light colour, but not at all inclined to gold.

When the Moon is ill-aspected at birth the native is indolent, sometimes a drunkard and vagabond, generally a liar, and, as Lilly puts it, "a muddling creature."

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The Moon governs the left side and the bladder. She gives dropsy, all cold and rheumatic diseases, colds or hurts in the eyes, convulsive fits, hysteria, and feminine weaknesses.

The plants she governs are all those which have soft, juicy leaves, such as the lettuce, the melon, the gourd, the poppy, mushroom, cabbage and colewort. Of trees, all those which have round, spreading leaves, such as the lime-tree and the sycamore.

The beasts she rules are those which love the water, as the otter and the seal.

She rules all sea fowl and also the goose, the duck and the night owl.

Of fish, the oyster, the cockle and the lobster.

Her colours are light greenish-blue mixed with white.

Her metal is silver.

Her stones, pearls, diamonds, opals, crystals and selenite.

Her orb is 12 degrees before and after any aspect.

Her day is Monday; the first hour and the eighth after sunrise are hers. Her number is 45.

Her friends are Venus, Jupiter, the Sun, Saturn and Mercury.

Her enemy among the planets is Mars.

Her angel is Gabriel.

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To face Chapter VI.

CHAPTER VI.

CONCERNING THE TWELVE HOUSES OF HEAVEN AND THEIR POWERS

The ancient astrologers divided the heavens into twelve houses.

The First House.—This is called the *Ascendant,* and the planet rising therein—whether well or ill-dignified—will materially affect the mind, bodily appearance and fate of the native through his whole existence. This house is masculine, and governs the head and face of man and, if the planet Mars be in this house at the time of birth, there will always be some blemish or mole in the face of the native; if a few out of the degrees have ascended the scar or blemish is, without fail, on the upper part of the head; if the middle part of the sign ascends the mark is in the middle of the face; if the latter part of the sign

is ascending the mark is near the chin. This house represents the head, the tongue and the memory, and it governs in colours white.

The Second House.—This house has signification of the native's wealth and worldly goods. The house is feminine, ruling the neck, and the colour is green.

The Third House.—This governs brothers and sisters, short journeys, neighbours, letters and writings. It is masculine and governs the hands, arms and shoulders; its colours are red and yellow mixed.

The Fourth House.—This rules the father, inheritances or property of the native, and shows his condition at the close of life. It is feminine, and rules the stomach, breast and lungs; its colour is red.

The Fifth House.—This signifies the children of the native, also his success in speculation and hazardous games, the pleasures he enjoys and the wealth of the father. It rules the heart, back and liver, is masculine, and represents in colour black and white mixed.

The Sixth House.—This concerns the native's servants, sheep, goats and small cattle. It also signifies the father's kindred. This house is feminine. It rules the belly and intestines and its colour is black.

The Seventh House gives judgment of marriage and describes the man or woman in all love questions. It is masculine, it rules the haunches, and its colour is black.

The Eighth House argues of death, of legacies and wills, also of the kind of death a man shall die; it is a feminine house. It rules the lower parts of the trunk of the body; its colours are green and black.

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The Ninth House gives judgment on voyages and long journeys, and also on events happening to the wife's kindred. It rules the hips and thighs. It is a masculine house; its colours are green and white.

The Tenth House is called the *Mid-heaven,* and is feminine. This concerns the native's mother, and also his calling. It rules the knees and hams, and its colours are red and white.

The Eleventh House represents friends and friendship. It is masculine and rules the legs.

The Twelfth House.—This house is often called the *Evil Dæmon,* for it is the house of sorrow, self-undoing, enemies and imprisonment. It governs great cattle. It is feminine, and rules the feet and toes, and in colour it governs green.

The strongest houses are the first (the *Ascendant*) and the tenth (the *Mid-heaven*). The first, fourth, seventh, and tenth are called Angular Houses, and represent the four cardinal points of the compass; thus the first is east, the seventh west, the fourth is north, and the tenth south. The second, fifth, eighth, and eleventh houses are called Succedent Houses; the third, sixth, ninth, and twelfth houses are termed Cadent Houses (see plate 1). Any planet posited in a Cadent House is regarded as weak in its effects on the native. It is necessary to have thoroughly mastered the influences of the twelve houses, as well as those of the seven planets, and of the signs of the zodiac, before attempting to cast a nativity or to work a horary question.

CHAPTER VII.

AN EXPLANATION OF VARIOUS TERMS USED IN ASTROLOGY

Ascension, Right.—The distance any body or point in the heavens is from the beginning of the ecliptic or first point of Aries. It is measured in degrees and minutes of a degree. It is thus abbreviated, A. R.

Ascension, Oblique.—If a star be not on the equator, it will, when it rises, form an angle with that part of the equator which is rising at the same time, and this is called its

Ascensional Difference.—This, added to its right ascension (A. R.) if it have *south* declination, but subtracted from it if it have *north* declination, gives its oblique ascension.

Application signifies the approach of two planets and is of three kinds: first, when a planet, swift of motion, applies to one of slower progress: for example, we will suppose Mercury posited in 16 degrees of the sign Gemini, and Mars in 21 degrees of the same sign (*both being in direct motion*), Mercury being swifter would overtake and form a conjunction with Mars, which is termed a *direct application*. The second kind of application is formed by two retrograde planets: thus we will suppose Mercury in 16 degrees of Gemini and Saturn in 15 degrees of the same sign, both retrograde. Mercury being the swiftest planet, applies to Saturn, a more ponderous planet, by retrogradation, and this is called a *retrograde application*. The third kind of application is when one planet, being direct in motion, meets another which is retrograde: for instance, we will suppose Mercury retrograde in 16 degrees of Gemini, and Saturn *direct* in motion in 12 degrees of the same sign; here Mercury, being the higher planet, *applies to a conjunction* of Saturn by a retrograde motion. These two last are considered *evil* applications. It should also be remembered that the superior planets, Saturn, Jupiter and Mars, never apply to the inferior planets, Venus, Mercury and the Moon, except by retrograde motion; but the inferior planets apply in both ways.

Besieging signifies a planet situated between the two malevolent planets, Saturn and Mars: thus, if Saturn were in the 12th degree of Aries, Jupiter in the 14th, and Mars in

the 16th, Jupiter would then be *besieged* by the two malefic planets, Saturn and Mars. This is, of course, an evil position.

Cazimi.—A planet is said to be in *cazimi* when it is in the heart of the Sun: that is, only 17 minutes before or after the Sun. All astrologers agree that a planet is fortified by this position, but a planet when *combust* is very evil in its influences.

Direct motion signifies that a planet is moving on its natural course, according to the succession of the signs of the zodiac: thus a planet is *direct in motion* when it moves from Aries to Taurus, or from Taurus to Gemini.

Frustration means the approach of a swift planet to an aspect with one of slower motion; but before it can approach near enough to join that aspect the more weighty planet is joined to some other, by which the first aspect is frustrated.

Hayz is when a masculine diurnal planet is situated above the horizon in the daytime, or when a feminine nocturnal planet is placed below the horizon in the night-time; this is fortunate in its influence.

Node.—That part of the ecliptic where a planet passes out of north into south latitude is its south node; that where it goes into north latitude is its north node.

Oriental and Occidental.—A planet, when oriental, rises before the Sun; when occidental sets after him and is seen above the horizon when the Sun is down; consequently, when a planet is oriental it is posited in the east, and when occidental, in the west.

From the fourth house eastward to the tenth is oriental and from the tenth westward to the fourth is occidental. But ☉ or ☽ are *oriental* between the first and tenth and its opposite quarter and are *occidental* between the tenth and seventh and its opposite quarter.

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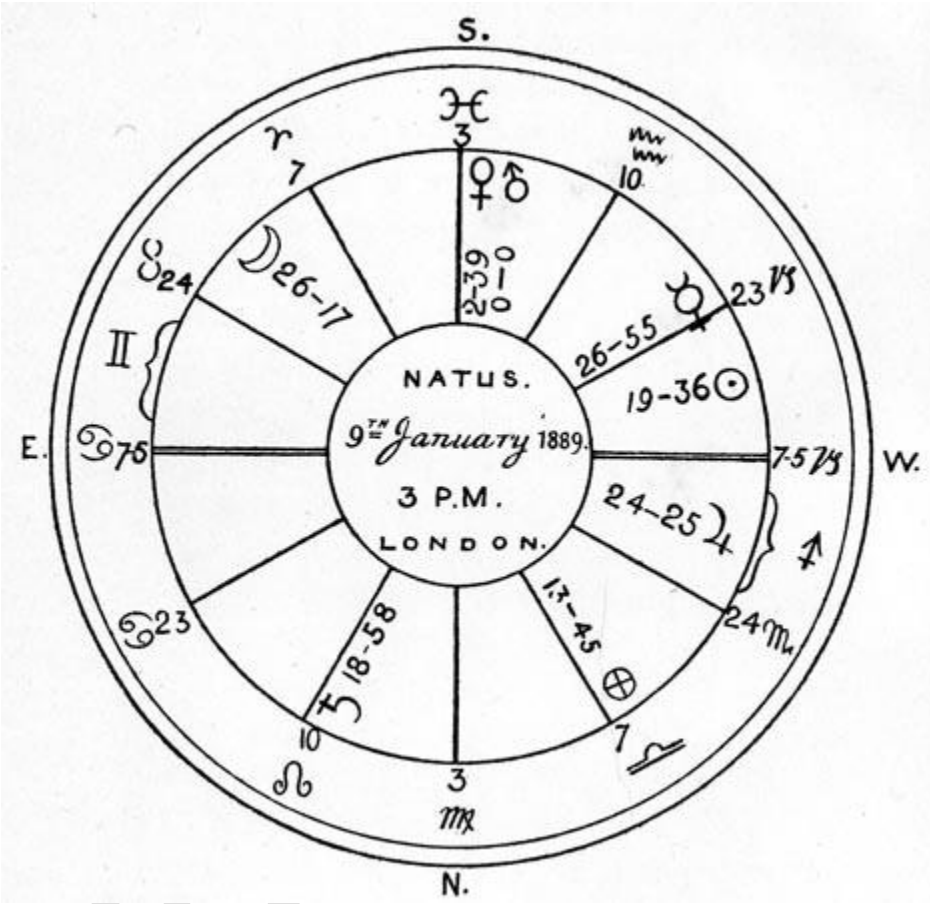
Void of course is when a planet is separated from another planet, and does not, during its continuance in the same sign, form any aspect with any other planet. This most usually happens with the Moon. The effect of this is



To face Chapter VIII.

CHAPTER VIII.

OF THE FIGURE OF THE HEAVENS

This was formerly termed a *horoscope*, but is now more generally called a *figure of the heavens*. It is simply a scheme, or plan, representing an accurate picture of the heavens—that is, of the positions of the Sun, Moon, and planets, and, in some instances,

of the fixed stars also, for the moment at which a child is born. In horary questions the figure is drawn for the required time, which may be the moment of the propounding of a question to an astrologer, or of the occurrence of any event of the result of which astrological information is desired.

This map, which contains the twelve divisions already described as the twelve houses of heaven, may be drawn in either a square or circular form. Lilly and other mediæval writers use both forms indiscriminately; but as the latter is more easily understood, the diagram (plate 2) is drawn up in that manner. It will be seen that it is formed of three circles. In the centre space the date, time and place of the event of a horary question are entered, and in a nativity the name, sex and moment of birth of the native. The next space (divided into twelve equal parts for the houses) is reserved for the planets and in the outer space are placed the signs of the zodiac, with the number of their degrees, on the cusp of each house. The cusps of the Houses are represented by that line between each house. Having obtained an Ephemeris, or astrological almanack [7] for the year required, we must find the Sidereal Time for the day and month of the birth, or question; then, if the time of the event be *before* noon we must *deduct* the difference between the given time and noon from the Sidereal Time of the day; for example, on the day of the event (the 9th January, 1889), the Sidereal Time at noon is shown by the Ephemeris to be 19 hours 16 minutes 51 seconds, if the birth had been at 9 a.m. The difference between 9 a.m. and noon is 3 hours. We should, therefore, have to *deduct* 3 hours from 19 hours 16 minutes 51 seconds, which gives 16 hours 16 minutes 51 seconds, the Sidereal Time required.

As the event is supposed to happen at 3 in the *afternoon*, we must *add* the difference between noon and the time given to the Sidereal Time of the day. The difference between noon and 3 p.m. is 3 hours, and, as the Sidereal Time on the 9th January, 1889, is 19 hours 16 minutes 51 seconds, we *add* 3 hours to this amount, which gives 22 hours 16 minutes 51 seconds, the Sidereal Time required.

We must now proceed to place the signs for 3 p.m. on the 9th January, 1889, which is thus done: We turn to the "Table of Houses" (which will be found at the end of the Ephemeris), and having found (under the column headed "Sidereal Time") the nearest time to 22 hours 16 minutes 51 seconds, which in this case is 22 hours 16 minutes 48 seconds for the latitude of London, we see in the next column (headed 10) the sign ♓ (Pisces), and the number 3° opposite our Sidereal Time, showing that the third degree of Pisces is on the cusp of the 10th house, In the next column (headed 11) we see ♈, and the number 7°; we therefore place 7° ♈ on the cusp of the 11th house, next 24° ♉ on the 12th; then 7° 5′ ♋ on the Ascendant (or first house), 23° ♋ on the 2nd and 10° ♌ on the 3rd; for the remaining houses we place the signs *in order* opposite to those already given, keeping the same number of degrees to each corresponding house and sign. The opposite house to the 10th is the 4th, and the opposite sign to ♓ is ♍; we therefore place 3° ♍ on the cusp of the 4th house, and so on of the rest. It will, however, now be seen that the two signs ♊ and ♐ are missing; these signs are "intercepted," which means that they lie between two houses without occupying the cusp of either; they must, therefore, be placed in their order *between* the cusps of the houses. This is, of course, not always the case, and some horoscopes will have no intercepted signs.

HOW TO PLACE THE PLANETS.

In the Ephemeris the longitudes of the planets are given daily for mean noon; so, to find the *exact* place of a planet for a given time, we must note the difference of longitude between the previous noon and noon of the day for drawing the map for a.m. and for p.m., the difference between noon of the day and noon of the day after. This *difference* is the motion of the planet in 24 hours, which we must work thus: As

24 hours are to—hours (*i.e.*, the difference between the given time and noon), so is the daily motion to the motion required. For example, the ☉ at noon on the 6th January is (omitting seconds) in 19° 29′ ♑, and on the 10th January at noon he is in 20° 30′ ♑ , which gives a daily motion of 59 minutes. We must find his place for 3 p.m. on the 9th January. As 24 hours are to 3 hours, so are 59 minutes to the time required; this equals about 7 minutes, which we add to the ☉'s longitude at noon on the 9th. If the event had been for a.m. this amount would have been *deducted* from the ☉'s longitude at noon on the day of the event. We must proceed in the same way for the other planets and place them in the map according to their positions in respect to the degrees on the cusps of the houses. The ☉ will be in 19° 36′ ♑, or about the middle of the 7th house. And note that the number of degrees of a sign on the cusp of any house shows that that sign commenced *in* the previous house. Supposing the ☉ had been 1° of ♑, we should then have placed it in the 6th house, a little below the cusp of the 7th. When a planet is *Retrograde* (shown in the Ephemeris thus, *R.*), we *add* the amount to the longitude when the event is before noon or a.m., and *deduct* it from the longitude when the event is after noon or p.m. The mode of giving the judgment on a horoscope will be shown farther on.

CHAPTER IX.

OF THE INFLUENCES OF THE FIXED STARS

The fixed stars are so called because they appear to keep at the same distance from one another in the heavens. All of these stars have their respective influences analogous to those of the planets. The following table of the principal fixed stars, with their several magnitudes and natures, will be found useful. It is only those of the first and second

magnitude which much affect us; the influence of those stars marked as of fourth magnitude is very slight. The time of the rising and setting of the fixed stars varies according to the latitudes of the places of observation. Their longitudes increase at the annual rate of 50 seconds, but their latitudes vary very little. The right ascension and declinations of the numerous fixed stars are given every year in the Nautical Almanack.

TABLE OF THE PRINCIPAL FIXED STARS, WITH THEIR MAGNITUDES AND NATURES.

Stars.	*Magnitudes.*	*Natures.*
South End of the Tail of the Whale	2	Of the nature of Saturn.
The Star in the Wing of Pegasus	2	Mars and Mercury.
The Head of Andromeda	2	Jupiter and Venus.
The Whale's Belly	4	Saturn.
The Girdle of Andromeda	2	Venus.
The Bright Star in the Head of Aries	3	Saturn and Mars.
The Left Foot of Andromeda	2	Venus.
The Bright Star in the Jaw of the Whale	2	Saturn.
Caput Algol	2	Saturn and Jupiter.
The Pleiades or Seven Stars	5	Mars and the Moon.
The Middle Star in the Pleiades	3	Mars and the Moon.
Oculus Taurus	3	Venus.
Aldebaran	1	Mars.
Rigel	1	Jupiter and Venus.
The Foremost Shoulder of Orion	2	Mars and Mercury.
The She-Goat	1	Mercury and Mars.
The Middle Star in Orion's Belt	2	Jupiter and Saturn.

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The Highest Star in the Head of Orion	4	Jupiter and Saturn.
The Star in the Horn of the Bull	3	Mars.
Propus	4	Mars.
The Right Shoulder of Auriga	2	Mars and Mercury.
The Foot of Gemini	2	Mercury and Venus.
Castor	2	Mars, Venus and Saturn.
Pollux	2	Mars.
The Smaller Dog Star	2	Mercury and Mars.
Præsepe [8]	1	Mars and the Moon.
North Asellus	4	Mars and the Sun.
South Asellus	4	Mars and the Sun.
Cor Leonis or Regulus	1	Mars.
Heart of Hydra	1	Saturn and Venus.
Vindemiatrix	3	Saturn, Venus and Mercury.
The Back of the Lion	2	Saturn and Venus.
The Tail of the Lion	1	Saturn, Venus and Mercury.
Crater	4	Venus and Mercury.
Arcturus	1	Jupiter and Mars.
The Virgin's Spike or Arista	1	Venus and Mars.
The South Balance	2	Saturn and Venus.
The North Balance	2	Jupiter and Mars.
The Left Hand of Ophiucus	3	Mars and Saturn.
The Highest Star in Head of Scorpio	2	Saturn and Venus.
The Left Knee of Ophiucus	3	Saturn and Venus.

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Cor Scorpio	2	Mars and Jupiter.
Antares	1	Mars.
The Right Knee of Ophiucus	3	Saturn and Venus.
The Bright Star of the Vulture	2	Saturn and Mercury.
The Mouth of Pegasus	3	Venus and Mercury.
The Tail of the Goat	3	Saturn.
Marchab	2	Mars and Mercury.
Fomalhaut	1	Venus and Mercury.
Scheat-Pegasi	2	Saturn.

To know when any of these fixed stars will affect the horoscope we must note the sign and degree on the cusps of the houses, and if (on consulting the Ephemeris) any of these stars should be found to be ascending or descending within five degrees of the signs upon the cusps of the several houses, they must be entered in the same manner as the planets, and their qualities weighed according to the nature of the planet or planets with which they correspond, as shown by the table given.

The influences of the fixed stars are not much considered by the modern astrologers, yet in certain positions their power is undeniable. The conjunction and opposition are the only aspects to be considered in regard to them, as they do not operate on the planets by sextile, square, or trine aspects. When a fixed star happens to be in conjunction with the Sun at birth, certain effects are distinctly traceable. For example, the Sun conjoined with Aldebaran, Hercules, Antares, or any fixed star having the nature of Mars, threatens a violent death, or, at best, constant illness to the native. The Sun, with the Pleiades, Castor, Pollux, or Præsepe, shows a cruel and headstrong disposition in the native and the *probability* of violent death. The star Arista, with the Sun, gives great and lasting good fortune. All the stars of the nature of Saturn, conjoined with the Sun, bring calamity and disgrace. When a fixed star, whose latitude does not differ much

from that of the Moon, is in conjunction with her, certain effects are produced; for instance, when she is conjoined with Aldebaran or Pollux violent death is indicated; when with the Pleiades injury to the eyes or blindness. The Moon with Antares and in opposition to Saturn with Aldebaran, shows death by strangulation. The Moon, with Aldebaran or Antares either in the ascendant or in the mid-heaven, gives brilliant honours, but not without many attendant dangers and hair-breadth escapes. Fixed stars of the *first* magnitude, near the cusp of the seventh house, show a rich wife, but her disposition will sympathise with the planetary qualities of the star. Fomalhaut and Rigel, in either the ascendant or mid-heaven, give fame after death. Sirius, the Dog Star, in conjunction with the Sun, either in the ascendant or mid-heaven, gives preferment and honours from royalty. Caput Algol, in conjunction with the Sun in the eighth house and in square to Mars, shows decapitation.

CHAPTER X.

OF THE EFFECT OF EACH PLANET IN EACH OF THE TWELVE HOUSES

Saturn in the first house, or ascendant, shows melancholy and many sorrows, and if near the ascendant probability of early death; in the second house pecuniary troubles; in the third quarrels with brothers and sisters, and dangers and losses in travelling; in the fourth house death of father or mother, and loss of friends; in the fifth barrenness or death of children; in the sixth illness, worries with servants and losses from cattle; in the seventh an ungovernable wife and unhappy marriage; in the eighth violent death and loss of legacies; in the ninth losses by sea; in the tenth dishonour and imprisonment; in the eleventh deep depression and false friends; in the twelfth sorrow, trouble and persecution from secret enemies. If the planet is strong—that is, well-dignified—these evils are much lessened.

Jupiter in the first house gives a good, happy and long life; in the second riches; in the third family affection and fortunate short journeys; in the fourth lands and inheritance with an honourable life and end; in the fifth many children who are good and affectionate; in the sixth faithful servants and fortunate dealings respecting cattle; in the seventh honourable marriage; in the eighth long life and natural death; in the ninth profitable sea voyages; in the tenth preferment and honours; in the eleventh faithful friends; in the twelfth victory over secret enemies. This, of course, means when the planet is strong in dignities; if weak the good will be somewhat abated.

Mars in the first house shows shortness of life and scars on the head or face; in the second poverty and troubles; in the third quarrels with kindred and dangers in travelling; in the fourth short life to the fathers; in the fifth disobedient children; in the sixth fevers, bad servants, and loss of cattle; in the seventh sensuality and unhappiness in marriage; in the eighth a violent death; in the ninth irreligion and losses at sea; in the tenth military preferment, but troubles from great dignitaries; in the eleventh false friends and loss of money; in the twelfth imprisonment. This is when Mars is afflicted, but if well-aspected these evils are somewhat abated.

The Sun in the first house gives honour, glory, and long life; in the second much riches, but great extravagance; in the third good brethren and fortunate journeys; in the fourth a noble inheritance and honours in old age; in the fifth few children, yet such as will be a comfort; in the sixth diseases of the mind; in the seventh a good wife, honourable adversaries, and sickness; in the eighth good dowry with the wife, but danger of a violent death; in the ninth gain by the sea, and ecclesiastical dignities; in the tenth gain from princes and noble women; in the eleventh distinguished friendships; in the twelfth powerful adversaries. This is if the Sun is well-dignified; if weak the good fortune is not so pronounced.

Zain n. adwan

Venus in the first house gives good health, but sensuality as regards the opposite sex; in the second riches by means of women; in the third, in a woman's horoscope, by means of lovers above her in rank; in the fourth inheritance; in the fifth many children; in the sixth illness from excesses; in the seventh a good and beautiful wife and very few enemies; in the eighth a good dowry with the wife and a natural death; in the ninth good fortune by sea; in the tenth honour and preferment through the means of some one of the opposite sex; in the eleventh sympathetic friends; in the twelfth freedom from the power of private enemies. This if Venus be strong; if weak the good fortune is less pronounced.

Mercury in the first house gives noble thoughts, graceful elocution, and love of art and science; in the second profit by intellectual work; in the third mathematical skill, swift and prosperous journeys; in the fourth the gain of an inheritance by craftiness; in the fifth clever children; in the sixth thieving servants and diseases of the brain; in the seventh a fomenter of quarrels, but a discreet wife; in the eighth death by consumption; in the ninth wonderful ability, especially in occult matters; in the tenth much preferment for ability; in the eleventh inconstant friends; in the twelfth secret enemies, but they will not much affect the destiny. This is when Mercury is well-dignified. If weak the good fortune is much lessened.

The Moon in the ascendant, or first house, shows the native will travel and will gain the favour of noble persons; in the second she sometimes gives unstable fortune, riches, and poverty alternately; in the third long journeys; in the fourth profit by travelling; in the fifth many children; in the sixth diseases of the brain, but good servants; in the seventh honourable marriage; in the eighth danger by drowning, but otherwise a long and healthy life; in the ninth many long sea voyages, inconstancy in religion, and love of art; in the tenth great honours; in the eleventh the friendship of noble personages; in the twelfth the common people will be the native's enemies and do him much wrong.

Zaid H. Adwan

The Dragon's Head when posited in the first house shows poverty; in the second a good estate; in the third honest kindred and fortunate journeys; in the fourth gain by travels; in the fifth long life and good children; in the sixth health and good servants; in the seventh a virtuous wife; in the eighth many legacies and a natural death; in the ninth prosperity at sea; in the tenth honour; in the eleventh faithful friends; in the twelfth open enemies.

The Dragon's Tail in the same places signifies the contrary in all things.

CHAPTER XI.

ON FORMING A GENERAL JUDGMENT ON A NATIVITY

Respecting the distribution of the doctrine of nativities, we are to consider first the *parents*, then the duration of life; the shape and figure of the body; after these the quality of the mind; then as to fortune in regard to honours as well as wealth. In succession to these the character of the employment; the questions relative to marriage, children, and friendships; then that concerning travel; and lastly, that concerning the *kind* of death which awaits the native from the configuration of the heavens at his birth.

The Parents.—In conformity with nature, says Ptolemy, the Sun and Saturn are allotted to the person of the father, and the Moon and Venus to that of the mother; and the mode in which these luminaries and planets may be found posited, with reference to each other as well as to other planets and stars, will intimate the situation of affairs affecting the parents.

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If Mars should be in bad aspect to the Sun, the father will receive some injury to the face or die suddenly; but a long life is presaged if Jupiter or Venus be in any mode whatever configurated with either the Sun or Saturn.

If Mars be succedent to the Moon or Venus, or in quartile or opposition to them, or if Saturn be similarly aspected to the Moon only, and both of them be void of course or retrograde, or cadent, adverse accidents and disease will attend the mother; should they, on the other hand, be swift in motion and placed in angles, they portend that her life will be short or grievously afflicted.

Should the Sun be configurated, in any mode whatever, with the Moon or Venus, or should Venus herself be harmoniously configurated with the Moon, either by the sextile, the trine, or the conjunction, the mother will live long.

Concerning the duration of the native's own life, the Hylegliacal[9] places are, according to Ptolemy, the sign on the angle of the ascendant from the fifth degree above the horizon to the twenty-fifth degree below it; the thirty degrees in dexter sextile thereto constituting the eleventh house; also the thirty degrees in dexter quartile forming the Mid-heaven above the earth; those in dexter trine making the ninth house; and, lastly, those in opposition belonging to the angle of the west.

Among these places, the degrees which constitute the Mid-heaven are entitled to preference, as being of a more potent influence; the degrees in the Ascendant are next in virtue; then the degrees in the eleventh house, succedent to the Mid-heaven; then those in the angle of the west; and, lastly, those in the ninth house, which precedes the Mid-heaven.

He also holds that "the Sun, the Moon, and the Ascendant to be considered as the four principally liable to be elected to the office of prorogator"—or HYLEG.

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These views are not adopted by the modern astrologers, but as this is a book *setting forth the ancient methods* it is needless to discuss the various objections made by them to this, as to some other of the theories laid down by Ptolemy.

Among the four prorogators already given, the Sun by day is to be preferred, provided he is placed in one of the Hylegliacal places, and if not, the Moon; but if the Moon also should not be so posited that planet is to be elected as Hyleg which may have most claims to dominion in reference to the Sun, the Moon and the Ascendant, which means that the planet should have dominion, in any one of the places where these are situated, by at least three dignities. If, however, no planet should be so circumstanced the Ascendant is then to be taken as Hyleg.

By night the Moon is to be elected as prorogator, provided, in like manner, she should be in some prorogatory place; and if she be not, the Sun; if he also be not in any prorogatory place, then that planet which may have most right of dominion in reference to the Moon, and the antecedent full Moon, and the Part of Fortune. But if there be no planet claiming dominion in the mode prescribed the Ascendant must be taken; in case a new Moon had last preceded the birth; but if a full Moon, the Part of Fortune.

If the two luminaries and also some ruling planet of appropriate condition should be each posited in a prorogatory place, then, provided one luminary may be found to occupy some place more important and influential than the others, that luminary must be chosen; but should the ruling planet occupy the stronger place, and have prerogatives of dominion suitable to the conditions of both luminaries, the planet must then be preferred to either of them.

When the Hyleg has been determined by the foregoing rules, then note whether it is supported by benevolent planets in good aspects towards it and free from affliction—that is, from evil aspects from evil planets—if so, the life is likely to continue and the constitution to be strong; but if the Hyleg, whether it be the Sun, the Moon, or the

Ascendant, be afflicted with evil planets and there be no assistance from good planets, the child will die in infancy: if there be some assistance from good planets, but yet the evil aspects exceed the good, the constitution will be weak and the first train of evil directions will destroy the life.

Concerning the disposition and quality of the mind, we must look principally to the planets in the Ascendant, the influences of which over mind and body have already been given in the chapter on the seven planets. We must, however, always bear in mind that Mercury has chief dominion over the mental faculties, whilst the sentient passions are governed by the Moon and the planet in the ascendant. The Moon well-aspected, that is, in trine, sextile, or conjunction to Mercury at birth, will give to the native excellent abilities, ingenuity, versatility and wit. Even the evil aspects of the square and opposition are better than no aspects at all, though these sometimes produce a cynical and obstinate nature.

The abilities of those born when Mercury is in "cazimi" (that is, within seventeen minutes of the Sun's centre) are of the highest order.

Mercury in conjunction with Saturn at birth gives clear judgment and a love of occult subjects.

Venus in good aspect with Mercury gives love of music and an artistic nature.

If Mercury and the Moon throw no aspect to each other and are afflicted by Mars and Saturn, the native will be liable to become insane.[10]

The fortune of wealth is determined by the Sun and the Moon; if they are in good position, that is, angular and well-aspected by the two luminaries, the native will be rich. If the Sun and the Moon are well placed, and if there be benefic stars in the Mid-heaven, the native will rank high in the world. If the contrary, the native never rises above mediocrity; and if Saturn afflicts the Mid-heaven, he meets disgrace. If Mars is

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strong and in good aspect to the Sun and Moon, he will gain military glory. Jupiter on the Mid-heaven and the Sun and Moon in trine to each other, the Moon, having the trine of Jupiter, is one of the best positions for rising in the world. Jupiter in the tenth house will cause the native to do fairly well in the world; but Saturn in that house, if not extremely well-aspected, will bring him to shame and beggary.

Concerning the nature of employment, the dominion of the employment is claimed by the Sun and by the planet on the Mid-heaven. If Mercury should rule alone he produces writers, teachers of science, merchants and bankers; also, if well-aspected to Saturn and the Moon, astrologers and students of all occult matters; if Jupiter is in conjunction, then the native will be an orator, actor, or painter and his pursuits will lead him into the society of persons of rank.

Venus ruling makes wine-merchants, dealers in colours, dyes, perfumes, drugs, garments or apparel, &c.; if connected with Saturn, she makes persons have to do with amusement, players, jugglers, &c.; if with Jupiter, persons attending exhibitions and priests who have much personal decoration such as Catholic priests, bishops, &c. and they will gain by women. Mars ruling alone makes martial men and, if in Scorpio, Cancer, or Pisces, naval men.[11] The Sun joined with him, being near the Mid-heaven, or in aspect, makes persons dealing with fire or metals, the latter especially if in Taurus or Leo. If Mars be separated from the Sun, he makes shipwrights, smiths, agriculturists, stonemasons and carpenters.

If Saturn bear testimony in addition to Mars, persons become mariners, workers in mines, wells, vaults, &c., underground, keepers of cattle, cooks, butchers. If Jupiter join with Mars, they will be soldiers, innkeepers, tax-gatherers, mechanics. If Mercury and Venus become joint arbiters of employment, they produce musicians, dancers, poets, weavers and painters, &c. Jupiter in connection with them makes magistrates and senators and also teachers of youth. Mercury with Mars makes surgeons, statuaries,

boxers. If Mercury be more powerful, they will be scientific; and if Mars be stronger, they will be more violent and cruel in their practices.[12] If Saturn join these two, they will be thieves (especially if the Moon be in ill aspect to Mercury); if ☽ be in ill aspect to ♂, they will be robbers or assassins. If Jupiter join ☿ and ♂, they engage in honourable warfare and are industrious. If Venus and Mars rule together, persons will be dyers, workers in tin, lead, gold, silver and medical drugs.

The Moon regulating the employment and, separating from the Sun and forming an aspect with Mercury, inclines to the pursuit of astrology, spiritualism and magic.

Concerning Marriage, Ptolemy has laid down some very clear rules. He advises persons about to marry to have a care that the luminaries—that is, the Sun and Moon in their respective nativities—are in concord. It is of happy augury if the Moon in the bridegroom's nativity is in good aspect—that is, in trine or sextile to the Sun in the bride's nativity. The Square or Opposition aspects formed between the luminaries in the two nativities indicate discord and separation, and very evil effects follow if the malefic planets, Saturn and Mars, have a bad aspect to the Sun and Moon in both nativities. If Venus be with them the separation will be caused by adultery. Good planets, such as Jupiter and Venus, placed between the luminaries in both nativities, show much happiness.

In men's nativities the Moon must be chiefly considered in regard to marriage. Should she be in her first or third quarter at birth, the man will marry under thirty, or if older his wife will be a very young woman.

If the Moon be configurated with Saturn, she entirely denies marriage. If she should be in a sign of single form, such as Libra or Taurus, the native will marry only once, but if she should be placed in a double-bodied sign, such as Pisces or Sagittarius, the man will marry more than once.

If the Moon make application to the benefics, the wives will be good and true; but if she make application to evil planets, the wives will prove either bad or of a quarrelsome disposition. For example: If Saturn receives the Moon's application the wife will prove troublesome and morose, yet constant and industrious; if Jupiter receive it, the wife will be decorous, good and economical; if Mars, bold and refractory; if Venus, cheerful, handsome and agreeable; if Mercury, sensible, prudent and clever.

Women in whose nativities Venus is configurated with Jupiter or Mercury are virtuous and well-conducted; but, when Venus is with Mars and no other planet is there, women born under such aspects are liable to become licentious. Mars in square to Venus shows adultery.

For women the Sun is to be chiefly regarded in estimating their chances of marriage and happiness. If the Sun be oriental (*i.e.*, between the Ascendant and Mid-heaven, or between the Descendant and Nadir) the native will marry in her youth; or when old, to a young man. If the Sun be occidental, the native will marry late in life; or when young, to an old man. If the Sun be in a sign of single form, she will marry but once; if in a double-bodied sign, or configurated with several oriental planets (in one sign) she will marry more than once. If Saturn be configurated with the Sun, the husband will be steadfast, prosperous and industrious.

Jupiter configurated with the Sun gives a good, benevolent and honourable husband. "Mars," says Ptolemy, "gives a severe husband, void of affection and intractable." Venus gives an amiable husband of handsome appearance. Mercury gives one who is provident and expert in business and of a lively and cheerful temperament.

If Mars be separated from Venus and Saturn, yet have the assistance of Jupiter, men will lead virtuous lives. If Mars be configurated with Venus *only* men are of a licentious temperament.

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Saturn, when in the 7th house of a nativity, brings either unhappiness in marriage or early death of one or other of the married people. The Sun badly aspected by Saturn in the nativity of a woman and the Moon afflicted by the same planet in the nativity of a man, will bring trouble in love and marriage.

Description of the wife or husband.—The planet with the sign in which it is placed, which is posited near the cusp of the 7th house, must be taken to describe the person. If no planet should happen to be so placed, then we must go by the sign alone. Benefic planets in the 8th house show that the wife or husband will be rich; unfortunate planets show the reverse.

Children.—As regards the probability of having children, the 10th and 11th houses must be consulted and, should there be no planets in them, then the opposite, the 4th and 5th houses, must be considered. The Moon, Jupiter and Venus are said to be givers of children; the Sun, Mars and Saturn deny children, or give very few and those either die early, or are a source of trouble to their parents. Mercury either gives or denies according to the planets with which he may happen to be posited.

If the Sun and malefics be in barren signs or in masculine signs and in the before-named houses, there will be no children; but if they be in fruitful or feminine, or common signs, there may be children, but they will be delicate and short-lived.

If Jupiter, the Moon and Venus, are well-dignified in the 10th and 11th houses, the children born will attain rank and distinction in the world.

Friends and Enemies.—Persons born under the same sign of the zodiac are likely to be sympathetic; so also if the planet in the ascendant of one person's nativity is one which is friendly to that which rises in the ascendant in the other's. Thus, a person whose ruling planet is Venus would be attracted by one in whose ascendant Mars is dominant and a person whose ruling planet is the Moon rarely contracts a warm friendship with one who has Mars in the ascendant of his nativity and *vice versâ*. The friendships and

enmities of the planets have already been given in the chapter on the influences of the seven planets.

Mars in bad aspect to the Sun or Moon in the 7th house causes quarrels in married life.

Travelling.—The position of the Moon and Mars are here to be considered. If they should be in a cadent position the native will travel a great deal. The Moon in a watery sign causes much travelling by water. Ptolemy tells us that Mars in square or opposition to the Sun or Moon will cause much travelling in foreign countries. If the benefics are conjoined with the Moon, the journeys will be safe and pleasant; if with the malefics they will produce mischances and ill-health in travelling. Mercury ascending at birth, in a double-bodied or moveable sign, shows a great disposition to travel. If a malefic affecting the Moon should be in the watery signs of Cancer, Scorpio, or Pisces, shipwreck and even death by drowning may ensue during travelling.

Of the Manner of Death.—If the Hyleg and Ascendant should be well-aspected and if either Jupiter, Venus, Mercury or the Moon well-dignified should appear in the eighth house the native will die a natural death. If either the Sun or Moon should be badly aspected by Mars or Saturn in the eighth house it is significant of a violent or remarkable death. Saturn causes lingering deaths and Mars those which are sudden.

Saturn indicates death by chronic diseases, rheumatism, ague and paralysis.

Jupiter (when not well-aspected at birth) may become a promittor, or cause of death, by apoplexy, inflammation of the lungs, spasms, or gout.

Mars indicates death by acute or eruptive fevers, small-pox, all kinds of hæmorrhage, burns, suicides and wounds from iron, over which metal he presides.

Venus produces death by cancer, scurvy, dysentery, or wasting away and putrid diseases. If violence attends she causes death by poisoning.

Mercury kills by madness, epilepsy, coughs and obstructions. If violence concur he brings death by accident in sport or by robbers.

The Moon.—When the Ascendant or ☉ be Hyleg, the Moon will assist in causing death by cold phlegmatic diseases and if she be placed in ♋, ♏, or ♓, by drowning.

The Sun will assist to cause death by his ill aspects to the Ascendant or ☽ if they be Hyleg and then he acts like Mars, and if in *Leo*, will produce death by fire, if other testimonies agree.

The benefics cannot cause death of *themselves*; and even their ☌ aspects will frequently save life when they fall amidst a train of evil directions. But if the malefic influence is too powerful for them to avert, then they cause death in the various manners above described.

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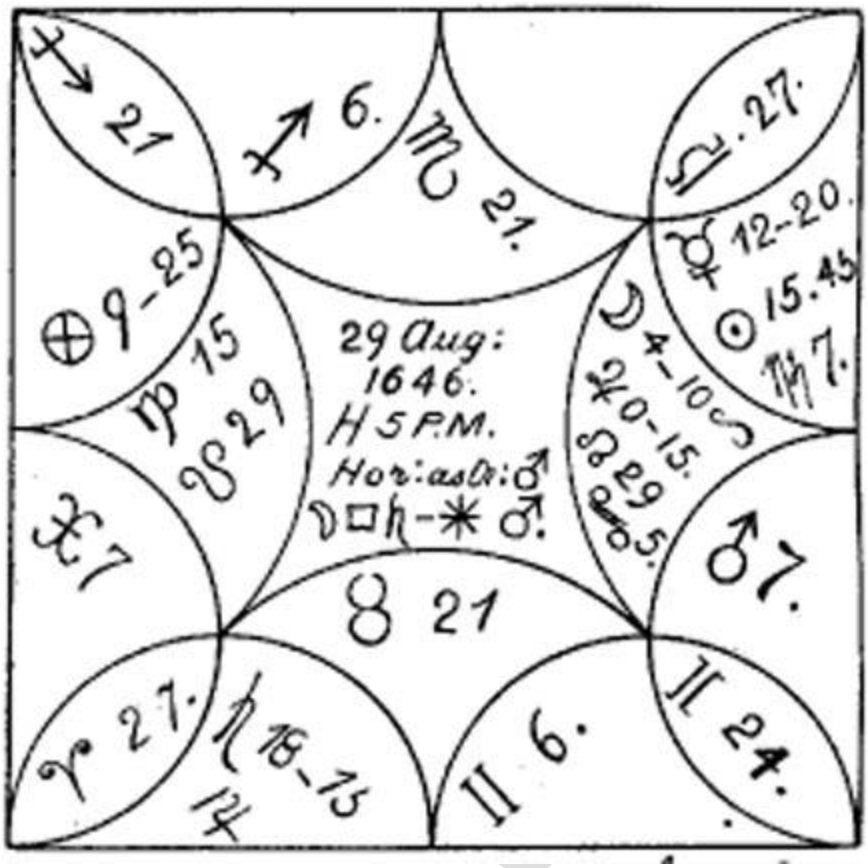

A Dogge Missing—where?

FACSIMILE OF A MAP OF A HORARY QUESTION FROM LILLY'S ASTROLOGY.

To face Chapter XII.

CHAPTER XII.

CONCERNING DIRECTIONS AND HORARY QUESTIONS

We have seen in the chapter on the judgment of a nativity that by the consideration of the position of the planets and of the Sun and Moon in the twelve houses, what the *general* fortune of the native will be in the whole course of his life; but the art of Direction measures out the time into years, months, weeks and days and thus informs us when we may expect in *particular* what is *generally* promised us in the nativity.

Directions are of two kinds, *primary* and *secondary*, and are based upon arithmetical calculations of the time of the events caused by the aspects of the significators (that is, of the Sun or the Moon), with the places of the planets. They are founded upon the familiarities of the stars amongst each other in the zodiac (*after the nativity*), and show, by calculations, the distance of the place of a significator at the moment of the nativity from the place it must reach before it can join the aspect, which distance is called *the Arc of Direction*. Some astrologers consider what are called "*Mundane Directions*," which are distances in the world measured by the semi-arc, and are wholly independent of the zodiac. These were invented by Placidus, but as Ptolemy does not treat of them they will not be considered here.

It must always be remembered that—in directions—the place of a planet, at the time of the nativity, is called the planet itself, although it may not be there when the significator arrives; thus, if we wish to direct the Sun to the conjunction of Jupiter, we must do so to the position which that planet occupied *at the moment* of the nativity. When the Arc of Direction is found the Sun's right ascension must be added to it, and the Sun will be the right ascension (without latitude) of that place in the zodiac at which, when the Sun arrives, the direction will be completed. For every day of the Sun's approach to this point a year must be added, and thus the time when the event is likely to happen is pointed out: these primary directions, however, cannot be depended upon to produce an event of great importance unless the secondary directions agree; but where the nativity is weak the primary direction alone is powerful enough to kill (especially if it should be opposed to the Hyleg), and misfortune will always happen if the positions of the planets, at the moment of birth, are unfortunate, *without* the coincidence of any secondary direction.

Secondary Directions are those daily aspects to the luminaries which happen after birth, every day of which is reckoned for a year, two hours for a month, thirty minutes for a week, and four minutes for a day.[13] Thus, whatever aspects take place in the *first*

day of the native's life will develop their effects in the first year and those of the second day in the second year, so that, should the native live fifty years, his secondary direction for his fiftieth year will arise from the aspects which took place on the fiftieth day after his birth. The ancient astrologers—particularly the Egyptians—used to predict the events of a nativity *wholly* from these secondary directions,[14] in which the Moon should be chiefly considered; for in those days on which she comes to an evil aspect with the malefics, Saturn or Mars, the years corresponding to those days will be peculiarly unfortunate and dangerous to the native; and where, on the contrary, the Moon is well-aspected to the benefics, the years corresponding to those days will be very fortunate: a good direction gives prosperity in that matter which the significator indicates; thus we direct the Sun to signify the native's preferment or disgrace, his good or bad health, and the favour or disesteem of great personages.

The direction of the Moon refers to the nature of the native's journeys, whether prosperous or the reverse, his marriage, his wife, his women friends and kinsfolk.

The direction of Saturn signifies the native's inheritance, buildings, possessions, and also his fears, jealousies and mistrusts.

Jupiter is directed as regards glory, renown, riches, children and religion.

Mars is directed for the native's law-suits, animosities and victories; he also shows the estates of brethren.

Venus is directed for marriage, love and pleasure and all matters in connection with women.

Mercury is directed for a knowledge of the amount of wit, understanding, trade, industry, and journeys of the native; also for distinction in scholarship and all intellectual pursuits.

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The Horoscope or Ascendant is directed to signify the life, affections and manners of the native.

The Mid-heaven's direction affects the position and career of the native.

If the directions are to good aspects of benevolent planets, they signify prosperity both of mind and body, cheerfulness and all manner of earthly happiness; but if the horoscope should have directions to the ill aspects of the malefics, Mars or Saturn, then evil is to be expected of the nature given by the malevolent star. If directed to the good aspects, such as the trine or sextile of these evil planets, the misfortune is not so great, and even in some instances good may be predicted. As, for example, the horoscope directed to the trine or sextile of Mars gives preferment by arms; the same aspects towards Saturn would indicate success in building or in mines, or some calling connected with metals.

The occasional differences in the life, tastes, health, marriage and pecuniary affairs of twins, born within ten or twenty minutes of each other, are accounted for by the fact that at the birth of the first child the last degree of a sign may ascend with planets therein, or a planet in the 2nd house at 5 p.m. may be in the 1st at 5.15 p.m. and the early degrees of another sign may be exactly on the ascendant at the birth of the second child.

A planet may reach the M.C., or any other of the four cardinal points at, say, 10 p.m. and ten minutes later have passed off, when its powers would have greatly diminished. Though the signs rise and set at the rate of 15° per hour, in our latitude from 50° to 60° North, it often happens that 30° will ascend in fifty-two minutes.

Horary questions are questions asked at a certain time when a person feels anxious concerning any undertaking or impending event. A figure or map of the heavens, like that erected for a nativity, is drawn out for the minute in which the question is asked; and, if the astrologer be skilful, and the querist sincere—that is, not putting the question

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from frivolous motives—the answer will, in general, be true, for the whole is the effect of that sympathy which pervades all nature and which is the keynote of all divination under whatsoever form it is practised.

In horary questions the sign ascending and its lord represent the querent, and to these the Moon is added and must be considered with the lord of the ascendant.

The house to which the thing belongs—about which enquiry is made—is the significator of that person and thing, and every other house and its lord are to be considered according to their respective significations, so as to indicate the means and persons by which the event, about which the enquiries are made, will be accelerated or retarded.

The dates of events are regulated by the signs and angles. For example, should the significator of the event be in a movable sign and an angle the event will come to pass in the same number of days as there are degrees between the significator's aspect and the star to which it is directed if the aspect be by *application*; if by *separation*, the thing will *not* take place at all. In one of the succedent houses movable signs give months, common signs years and fixed signs bring about the event, after much delay, and when all hopes of it are past.

Significators in any of the cadent houses seldom do anything and, should they bring about an event at all, they do so after much waiting and with much trouble and vexation.

The matter of horary questions is very well treated in Lilly's *Grammar of Astrology*, published in 1647, and, by way of explaining the manner in which this branch of astrology is worked, we give a *fac-simile* of a map of a horary question to be found in this book, with (verbatim) Lilly's method of dealing with that particular question.

Judgment of the Figure given in Plate.—"Living in London, where we have few or no small cattle as in the country, I cannot give example of such creatures, but I once set

the figure preceding concerning a Dogge (which is in the nature of small beasts), which dogge was missing. The question to me was what part of the city they should search and if he should ever be recovered.

"The querent was signified by the sign ascending and the lord thereof, for, in his person, he was Saturnine and vitiated (according to the Dragon's Tail in the ascendant) in his nature, mind and understanding—that is, he was deformed in body and of a covetous disposition. The sign of the sixth house and his lord signifies the dogge, for that sign stands for sheep, hogs and small cattle.

"The sign of Gemini is west, and by south the quarter of the heaven is west; Mercury (the significator of the dogge) is in Libra, a western sign, but southern quarter of heaven, tending towards the west; the Moon is in Virgo, a south-west sign, and verging towards the western angle. The strength of the testimonies being thus examined I found the plurality to signify the west, and therefore I judged that the dogge ought to be westward from the place where the owner lived, which was at Temple Bar, wherefore I judged that the dogge was about Long Acre, or the upper part of Drury Lane. In regard that Mercury (the significator of the beast) was in a sign of the same triplicity as Gemini the ascendant, which signifies London, and applied to a trine aspect of the cusp of the sixth house, I judged that the dogge was not out of the lines of communication, but was in the same quarter, of which I was more confirmed by the trine of the Sun and Saturn. The sign in which Mercury appeared was Libra—an airy sign; therefore I judged that the dogge was in some chamber or upper room, and kept privately, or in great secrecy, because the Moon was under the beams of the Sun; and Mercury, the Moon and the Sun were in the eighth house: and because the Sun on the Monday following would apply by trine to Saturn, the lord of the ascendant, and the Moon to trine of Mars having exaltation in the ascendant, I intimated to the owner of the beast that, in my opinion, he should have his dogge again, or news of his dogge or small beast, upon the Monday following, or near that time, which was true; for a gentleman of the querent's

acquaintance sent home the dogge the very same day, about ten in the morning, who, by accident, coming to see a friend in Long Acre, found the dogge chained up under a table, and, knowing the dogge to be the querent's, sent him home as above said, to my very great credit," and no doubt also to the great satisfaction of "the dogge" himself.

CHAPTER XIII.

SOLAR HOROSCOPES[15]

JANUARY.—AQUARIUS

The influences of this sign last from the Twenty-second of January to the Twenty-first of February.

The man born under this influence will be of medium stature, good genius and a great speaker. He will achieve what he desires and will become famous in his own country.

He will be subject to melancholy, very religious and of a highly conscientious nature. The stars, however, destine him to pass through much poverty in his youth and he will have other troubles in the matter of deaths of relations and friends before he is thirty. He will travel much and, in his early youth, he will suffer from illness. He will be much influenced by women to his own detriment. He will lose his first wife and will marry twice, but the second marriage will not be very fortunate. At thirty he will be very seriously ill, but will recover and live on to about sixty-four years.

The woman who is born at the above-mentioned dates will have a charming and expressive face; her eyes will be soft and beautiful in shape and her hair of a medium brown colour, neither very dark nor very fair. In character she will be slightly melancholy and of a romantic turn of mind. She will be happy in her marriage. She will

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have a serious illness at fifty, but will recover from it through the affectionate care of her husband, and will live to a good old age, surrounded by her children's children.

FEBRUARY.—PISCES

The influences of this sign last from the Twenty-second of February to the Twentieth of March.

The man who is born under the influence of this sign will be above middle height, his chin will be fleshy, his eyes blue and his complexion rather colourless. His forehead will be low and broad and his eyes will express much kindness and goodness of disposition. He will be very fond of aquatic pursuits and take great delight in angling. He will not be studious, for he has not much perseverance, but he will take delight in conversation of an instructive order. He will not be much of a talker and will be slow to give his opinions on any subject. He will be of a luxurious temperament and will be much influenced by women. He will be economical in his household expenses, but will spend money freely on his own pleasures out of his family circle. He will be fond of travelling and will be more fortunate in other places than in his own country. He will be ingenious and of good counsel, yet wiser for others than for himself. He will lose his wife early in life, but will not marry again, yet this more from indolence than constancy of feeling.

The woman born at this time will be fairly good looking; her eyes will be light blue and she will have a fair complexion and a dimple in the right cheek. She will be of a good disposition and kind to the poor; but yet she will be self-indulgent and much given to luxury of all sorts. She will marry twice and have many children, but the stars do not promise her much happiness. She will die at sixty-eight.

MARCH.—ARIES

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The qualities given by this sign of the Zodiac last from the Twentieth of March to the Twentieth of April.

The man born under this sign will be of medium stature, of fierce countenance, with an aquiline nose, quickly moving eyes and a strongly marked dimple in the chin. His hair will be of a reddish tint, his forehead broad and his complexion florid. He will be a loud talker and have much inclination for women and also for the pleasures of the table. He will be fond of field sports and very courageous. He will be subject to accidents, both from fire and from four-footed beasts. He will be capricious in his affections and will suffer much from his affairs with women in his youth, but will grow wiser towards middle age. He will not marry. At fifty he will lose much money and will fall into poverty, and thus become alienated from the friends of his youth. His life will not be prolonged much beyond fifty-five years.

The woman born at this time will have a florid complexion, large round-shaped eyes and a square chin. She will be of middle height and rather strongly made. She will be quick-tempered, strong-willed, very courageous and rather selfish. She will marry at twenty-three, but will not have many children. She will be a widow in middle life and will marry again within a year of her first husband's death. She will die suddenly by an accident in her fifty-sixth year.

APRIL.—TAURUS

The influences of this sign last from the Twenty-first of April to the Twenty-first of May.

The man born under this sign will have full lips, a short throat, and a mole at the back of his neck. He will be subject to sudden fits of anger and will be fierce and cruel. He will be fond of women, but will not be much liked by them and will suffer much in consequence. He will be ambitious, fortunate in business and energetic. He will not be very prudent in speech and will often get himself in trouble by over-

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communicativeness. He will marry a rich wife and will acquire much money by legacies from her relations. He will be very ill at forty, but he will survive it and come into much riches soon after it. His life will go on to about sixty-two, when he will die of much the same illness which he had at forty.

The woman born at this time will be graceful and well formed, with luxuriant hair and a full and well-formed mouth. She will have a good complexion and will have fascinating manners, so that she will much attract men. She will run great risks both from fire and water, and she will be subject to weakness of the eyes to such excess that towards the end of her life she will have reason to fear blindness, but she will escape this calamity. Although she will have many lovers she will only marry once, for her husband will survive her. She will have many children and they will all live. She herself will die before sixty.

MAY.—GEMINI

The influences of this sign will last from the Twenty-second of May till the Twenty-first of June.

The man born under the influence of this sign will be subject to ulcers and all skin diseases. He will be tall, well formed and of florid complexion. He will be much liked for his amiable qualities and will govern his family well. He will travel much in foreign countries and will acquire many beautiful things in the course of his travels. He will be attentive to women, very conscientious, gracious and valiant. He will not be at all given up to luxury, but will be of a pious and self-denying temperament. He will be bitten by some venomous reptile, yet will not die of the wound, but will recover entirely from it in a short time. He will be falsely accused of some sin and will be imprisoned for it; but he will come out victorious and his innocence will be acknowledged by all. His marriage is uncertain.

The woman who is born at this time will be fluent of speech, gracious in manners, witty and intelligent, but rather sensitive in temper. She will be small of stature, slight in figure and of a fair complexion. She will have well marked yet delicate eyebrows, brilliant eyes and small white teeth; her hands will be slender, with pointed fingers. By reason of her grace and wit she will be much loved, but she will not marry until she is twenty-five. She will be passionately loved by her husband, but she will not return his affection. She will have very few children who will not live beyond childhood. She herself will die at sixty-seven.

JUNE.—CANCER

The influences of this sign last from the Twenty-first of June to the Twenty-first of July.

The man born under this sign will be of medium height and will have light hair and eyebrows. He will be given to deceit in his manners with women and will be very inconsistent, yet always with such gracious manners towards them that he will be much beloved by them. He will travel much, and will suffer many misfortunes in the way of accidents. He will in middle age lose much money through the misconduct of his brothers, who will, by their extravagance, spend all the father's money and thus leave only a poor inheritance. He will occupy himself with agriculture and be successful with it. At forty he will suffer from a very serious illness and his life will probably end at forty-eight.

The woman born at this time will have large grey eyes, full lips and an abundance of soft, rather colourless hair. She will be fond of luxury and ease, and will be much given to the pleasures of the table, and will eat much and drink more. She will marry early, but will not agree with her husband by reason of her own inconstancy. She will be married three times, and will get on better with her last husband than with the two

others. She will have several children, but they will all be of a sickly constitution. She herself will have a very serious illness at seventy which will cure her of all her troubles.

JULY.—LEO

The influences of this sign extend from the Twenty-first of July to the Twenty-first of August.

The man born under this sign will be of middle height, but more inclined to be tall than short; his hair will be of a red colour, and his eyebrows will be well marked and much arched in their form. He will be valiant, hot tempered, very talkative, somewhat boastful, but pleasant and jovial in his manners. He will be a great admirer of women, but not constant in his affection. He will marry once, but not the woman he so much loves.

The woman born at this time will be tall, with bright hair of a reddish gold colour, grey eyes, with a bold fierce glance, and long features. Her nose will be aquiline and the face a long oval. The lips will be full but firmly closed and the teeth good and large. She will be quick of temper and difficult to please, fond of pleasure and very ambitious of shining in society. Her great desire for admiration will cause her to be much talked about—not always in a manner pleasing to her husband. She will marry early. She will lose her husband in early youth and will marry again soon after her widowhood. She will be much subject to illnesses through the blood, and at forty-eight she will have a very serious illness; but she will recover and live another fifteen years, but her life will always be full of anxieties and troubles.

AUGUST.—VIRGO

The influences of this sign last from the Twenty-second of August to the Twenty-third of September.

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The man born under this influence will have an abundance of hair and will have a large chin and a good complexion. He will be ambitious, enterprising, and very valiant, but a little capricious. He will suffer much illness and, when he is about thirty years of age, he will be menaced by death or imprisonment, yet he shall escape both evils. He will be of a sympathetic and benevolent disposition and will give good counsel to his friends. He will have a beautiful wife whom he will tenderly love, although she will not return his affections.

A woman born at this time will be graceful and charming, with a well-formed face, an agreeable expression, small mouth and well-proportioned figure. Her voice will be one of her charms, and will be clear and soft and singularly harmonious. She will be much loved and admired for her wit, and will show much taste for music and dancing. She will have fairly good health, and her beauty and charm of manner will make her much sought after in marriage, but she will not accept any of her numerous lovers until after her twenty-second birthday. She will be much loved by her husband, and being inclined to be devout, she will educate her children in the fear of God. She will die at sixty-nine.

SEPTEMBER.—LIBRA

The influences of this sign last from the Twenty-third of September to the Twenty-third of October.

The man born under this sign will be fluent of speech and his voice will be sonorous and will sound angry even when he is not so. He will be wise and prudent and will be much esteemed by good men. He will be just and honourable in all his dealings and will acquire the respect of all who know him for his conscientious dealings with his fellow-men. He will marry twice. His second wife, whom he will marry when he is turned forty, will be extravagant, and will so worry him by spending all his substance, that she will bring on his death before he is fifty.

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The woman born at this period will be, say the astrologers, cheerful and of a kindly disposition. She will be of a lively temperament and will easily learn both music and dancing and will excel in both. She will be amiable, very caressing in manner and much loved by all who know her. She will marry twice. Her first husband will be rich and of mature age and very prudent. The second will be young and will soon spend the greater part of the money left her by her first husband. She will be gay, fond of pleasure and rather a coquette, which will much displease the second husband. She will be rather given to gambling and will lose money in this way, which will cause her much discomfort and anxiety in her latter years.

OCTOBER.—SCORPIO

The influences of this sign will last from the Twenty-second of October to the Twenty-first of November.

A man born under this sign will be short and broad in figure and ungraceful in his movements. He will be dark in complexion; but the hair will be of a red-brown colour, the eyebrows thick and meeting over the nose. He will be prompt in judgment, but very wily and inconstant, promising one thing and doing another, so much so, that those who have once had dealings with him will never again have confidence in him, knowing how likely he is to deceive them. He will be of a perverse and irritable temper, which will cause him to have many enemies; and notwithstanding all his acuteness, he will always be poor. He will travel much and will lead a somewhat vagabond life. He is very unlikely to marry, and he will probably die a violent death.

The woman who is born under the influence of the Scorpion will be of a reddish colouring and of middle height and strongly built. As regards her character, she will be affable, much beloved by her relations, fond of pleasure, yet very energetic in the discharge of her household duties, sensitive in temper, a little revengeful and very ingenious and of quick judgment. In her youth she will have much trouble from

lawsuits, but she need not fear the result, for as she is pious God will always protect her. She will only marry once, at about her twenty-sixth year, and will die at sixty-eight. She will have no children.

NOVEMBER.—SAGITTARIUS

The influences of this sign continue from the Twenty-second of November till the Twenty-first of December.

The man born under this sign will be of pale complexion and he will have long features and dark hair and eyes. He will be prudent, studious and economical. He will see many foreign countries and will gain much money in his youth, by reason of which he will excite the envy of his friends. He will receive much injury from a relative, who will endeavour to prejudice people against him, but he will always be well received and much liked in society. He will be generous to his friends, but he will be badly recompensed for his kindness. He will be persevering in his profession and will attain a good position in it. He will be subject to internal complaints, but will live long. He will be untrue to his wife, but he will be careful that she does not know it. He will have several children, but they will be no comfort to him, as they will be always ungrateful to him.

The woman who is born at this time will be well formed, with luxuriant hair and well-marked and rather arched eyebrows; her forehead will be broad and her intellect good, but her temper easily irritated and over sensitive, especially where her affections are concerned. She will be timid, very constant both in love and friendship, generous in her affections, yet very ill-requited in this respect. She will marry at twenty-six and will have many children. She will suffer much from the evil tongues of false friends, who will malign her to her husband, but her innocence will be made known and in the end she will be fully justified. She will live to sixty-eight.

DECEMBER.—CAPRICORNUS

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The influences of this sign last from the Twenty-first of December to the Twenty-second of January.

The man born under this influence will be of good complexion, his voice will be clear and bright and he will be fluent of speech. He will have a mole on his chin or on his right arm. He will be very much influenced by women and will be a great lover of luxury. He is likely to be bitten by some mad animal and he is also menaced by many illnesses of the eyes and eyesight. He will be much deceived by a woman who will cause him much injury.

The woman born under this sign will be amiable, with an agreeable countenance, a clear voice and a well-formed body. She will be twice married. Her first husband will much love her. He will be a poor man, but of a very conscientious nature and much respected for his straightforwardness of character. Her second husband will be much richer and of a gay and pleasure-loving nature, but he will not be so affectionate as the first. She will suffer much from melancholia, and when she is thirty she will have a very serious mental illness; but, by the grace of God, she will recover from it and live until she is forty-seven.

CHAPTER XIV.

APHORISMS CULLED FROM THE WORKS OF PTOLEMY AND OTHER ANCIENT ASTROLOGERS

Whosoever may be adapted to any particular event or pursuit will assuredly have the star indicative thereof very potent in his nativity.

If Virgo or Pisces be on the ascendant the native will create his own dignity; but if Aries or Libra be there he will cause his own death.

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Venus gives pleasure to the native in that part of the body which may be ruled by the sign she occupies. It is the same with other stars.

Should a disease begin when the Moon may be in a sign occupied at the birth by some malefic, or in quartile or opposition to any such sign, such disease will be most severe; and if the malefic also behold the said sign, it will be dangerous. On the other hand, there will be no danger if the Moon be in a place held at the time of birth by some benefic.

In all horary questions remember that there is no affliction to the Moon so great as when she is in conjunction with the Sun; the ill aspects for the malefics must affect her, but no evil aspect is so powerful as her conjunction.

Mercury in trine or sextile to the Moon gives the capacity for acquiring foreign languages. In bad aspect to the Moon makes the native envious, sarcastic, ill-natured, given to lying and thieving.

Saturn in trine or sextile to Venus shows much power of attachment to wife and family. In a woman's nativity this is very good, as it indicates purity.

Those born near noon are generally successful in life, owing to the Sun's influence being then most powerful. Those born near midnight are by no means so fortunate as those born at midday, and it is a singular peculiarity in such nativities that the most remarkable events of their lives take place *after* their thirtieth year, and they are also certain of some kind of a name after death, meritorious or otherwise, according to what their horoscope declares. Persons born near midnight are very imaginative, and subject to see visions, dream dreams, and to be believers in the unseen world.

In all travels the Moon is to be considered, for she is a general signifier of journeys, whether by sea or land.

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When the moon is besieged between Mars and the Sun in a nativity, it argues a short life to the native.

Mercury, if posited in one of the houses of Saturn, in trine or sextile to that planet, gives excellent understanding; and if the moon be also well-dignified, the native is much given to the study of occult science, and will have much renown in that particular.

Those born with the Moon powerful in their horoscopes would do well to be guided by her aspects in their daily avocations. If she should be in trine or sextile to Jupiter, it is a good day to seek favours of the great, or to make arrangements with employers. When she is in trine or sextile to Mercury, all intellectual matters taken in hand will be likely to prosper. When she is so aspected to Venus, matters undertaken with reference to love, marriage, or friendship will have a happy issue. When she is in square or opposition she would have, of course, the contrary effects.

The Sun and Moon in conjunction with Mercury give to the native great intellectual abilities.

Those who have the benevolent planets, Jupiter and Venus, well posited in either the ascendant or the mid-heaven at birth will always be much beloved during the whole course of their lives.

He who is born with the sun in trine to Jupiter is fond of rule, and very famous in his generation.

Venus in square to Saturn at a birth causes the native to be sensual and given to unnatural vices.

All the planets, or most of them above the earth, make the native eminent and famous, and if all should be well-dignified, he will—like a comet—outshine all others in the world's esteem. If, on the contrary, all the planets are under the earth at a birth, the native will be of a falling fame and fortune, or if they promise by their natures honour,

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dignity and fortune (that is, if they appear essentially dignified in nocturnal genitures), these good things will only come in the latter part of the native's life.

Jupiter in conjunction with the Moon in a watery sign gives drunkenness.

Venus in conjunction, trine or sextile to the Moon, gives happy marriage, but in square to the Moon, prodigality, indolence and drunkenness.

Saturn in square to Mars means a malicious and murderous temperament, and liability to imprisonment.

It is advantageous to make choice of days and hours at a time well constituted by the nativity. Should the time be adverse, the choice will in no respect avail, however favourable an issue it may chance to promise.

A sagacious mind improves the operation of the heavens, as a skilful farmer by cultivation improves nature.

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Part II.

CHIROMANCY

"God has placed signs in the hands of all men, that every man may know his work."—Job xxxvii. 7 (*St. Hierom's Translation*).

CHAPTER XV.

CHIROMANCY AND ITS ORIGIN

Chiromancy is a science which teaches us to read not only the character but the whole destiny—for good or evil, the length of life and often the manner of death of a man by the lines and marks to be seen in his hand. This study is sometimes called Palmistry, in which case, however, it properly refers *only* to a judgment formed from what appears in the palm of the hand, whilst Chiromancy (taken from the word *Cheir*, a hand, and *Manteia*, divination) signifies the revelations made by the hand, taken as a whole. Chiromancy is nearly as ancient as astrology, with which it is *indissolubly* connected, for the hand represents, as has been before said, a natural horoscope, which is placed upon it at the time both of the conception and the birth by the influence of the stars. The seven planets are all represented in the hand and also the twelve signs of the zodiac, so that the casting of a nativity is needless, as by simply examining a hand by the light of Chiromancy we can indicate what planets have been powerful at the time of birth, and what, therefore, will be their effect for good or evil over the existence; and we can also find the dates of the principal events of the life. We find many allusions to this subject in the Bible, and still more in the ancient Kabbala.

The Holy Kabbala, as it was called by the Magi, must not be confounded with what is called "The Black Art"; it is, on the contrary, the quintessence of reason and morality as they were understood by the ancients and contains that traditional science of the secrets of nature which, from age to age, is borne towards us as the wave is carried by the tide to the shore; but it has been transmitted obscurely, because the doctrines of the Kabbala were known only, in those early ages, to the adept and the initiation, later on, of neophytes was only yielded after a series of severe and terrible ordeals, whilst the revelation of its mysteries to the uninitiated was punished by death.

The necessity of silence was, in fact, one of the principal tenets of the Kabbala and is represented, in the figure of Adda-Nari,[16] by the position of the fingers of the hand holding the flowering branch of Abundance; the thumb and the first two fingers, which in Chiromancy represent *will*, *power* and *fatality*, are held open; whilst the third and

fourth fingers, representing light and science, are closed. This was meant to indicate to the good—the initiated—that they would have, when united, strength and will to direct Fate; but that they must keep hidden from the wicked and ignorant both light and science. It must, however, in justice to the ancient Kabbalists, be suggested that their inculcation of silence probably arose, not so much from a desire of domination, but rather from the fact that, feeling themselves superior in knowledge, they thought they were obeying a divine law in refusing to the wicked those lights which, when possessed by them, led, as perhaps they had sometimes found, to error. We, seeing things in a wider light, give, or try to give, equal knowledge to all, without submitting the ignorant to the ordeal of initiation to prove their worthiness as recipients; but, after all, it amounts to much the same thing—give to all men truth and light in abundance, but all will not profit by it. We see this every day in our college system; the lesson is the same for all, but it is only the few who profit by it; and although we appear to be obeying a divine law in opening the way of light and life—the life of knowledge—to all, as God makes His sun to shine on good and bad equally, still we can, in some sort, understand the feeling of the ancient Magi, whose motto was: "Know, Dare, Will, but *keep Silence*."

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To face Chapter XVI.

CHAPTER XVI.

THE PRINCIPAL LINES IN THE HAND AND THE MOUNTS

In the plate belonging to this chapter we give a hand on which are marked the principal lines seen on the palm; three of which, viz., the Line of Life, the Line of Head and the Line of Heart, are found in a clearer or fainter degree on all hands, but which vary, as regards their relative position, in every hand. The first and largest, that which encircles the thumb, is called the Line of Life; by the length, colour and evenness, or the reverse, of this line the length of life is indicated, and also the illnesses and accidents by which the life is menaced in running its course. The line immediately above it, crossing the

palm of the hand, is the Line of Head; by it we are to judge of the intellectual powers. Above it is the Line of Heart, from which we form an opinion of the strength of affection, or the want of it, in the native.

The lines which are not always to be found are the lines going from the wrist to the finger of Saturn, which is called the Saturnian line, and which shows the events of the life; the Line of the Sun, which goes towards the finger of the Sun and which indicates success in art, literature, or the pursuit of riches; and the Line of Health, which goes from the wrist to the finger of Mercury: this line is often absent in a hand.

All these lines will be more fully discussed further on; at present it is only necessary to name them in order to explain the plate belonging to this chapter.

At the base of each figure there is a mount, more or less developed, on every hand. Now, each of these mounts corresponds with one of the planets from which it has received more or less influence, according to its development, and the signs or marks to be found upon it.

It will be seen also, from the plate, that the ancients gave to each finger the name of one of the planets, thus:—

The first finger represented Jupiter, the mount at its base being called the Mount of Jupiter.

The second, Saturn, the mount at its root being the Mount of Saturn.

The third, the Sun, the mount below being the Mount of the Sun.

The fourth, Mercury, the mount at its base being called the Mount of Mercury.

The thumb is sacred to Venus, and the root of the thumb is called the Mount of Venus.

It will also be seen that the planet Mars (although no finger is dedicated to it) is twice represented in the hand, along the side of the palm by the Mount of Mars, and in the

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palm, between the Line of Life and the Line of the Head, which is called the Plain of Mars.

The Moon is only represented by the Mount of the Moon, at the lower part of the palm on the opposite side of the hand to the thumb.

When these mounts are well in their places, and clearly but not too strongly defined, they give the qualities of the planet they represent; but when any mount is not well marked, or even, as frequently happens, is quite deficient, there is a want of the qualities shown to exist where the mount is clearly defined. If the mounts are not only ill-defined, but represented by a cavity, that cavity would indicate the existence of qualities which are the reverse of those indicated by the mount; whereas an exceeding development would denote an excess of the qualities given by the mount.

Thus the Mount of Jupiter, which is immediately under the index finger, when fairly developed, indicates noble ambition, will-power, love of nature, kindliness, generosity, religion and happy marriage. When in excess—that is, when the mount is so large as to invade that next it—the Mount of Saturn—it gives superstition, exaggerated pride and domineering self-assertion. The total absence of this mount (which is sometimes, but rarely, seen) indicates coldness, selfishness, irreligion and that want of dignity which is produced by the utter absence of self-respect.

The Mount of Saturn is found immediately beneath the second finger, which the ancients assigned to Saturn, the planet of Fatality. Saturn gives extreme misfortune, or extreme good fortune, according to the development of the mount and the signs and lines to be seen upon it, and the course of the Saturnian Line, or Line of Fate (of which we will speak further on), in the palm of the hand. This mount also denotes a tendency to occult science. Those born specially under the influence of Saturn are timid, lovers of solitude, and very seldom marry, but are very persistent in their affections when they do love.

Saturn, when well developed, gives prudence, wisdom and, to a certain extent, success; when in excess it gives sadness, taciturnity, asceticism, dread of the after-life and yet, sometimes, a predisposition to suicide. The total absence of the mount indicates an insignificant existence.

The Mount of the Sun is placed at the root of the third finger, which was sacred to the Sun; when this mount is well developed it indicates love of art and literature, which shows itself (according to temperament) in poetry, painting, sculpture, or music; it gives also religion of the æsthetic, tolerant sort, grace, riches and celebrity; in excess it gives love of show, frivolity and vaingloriousness. The total absence of the mount means a thoroughly material existence; absence of all taste for art—a life without colour, a day without sunlight.

The Mount of Mercury is found at the base of the fourth finger, and, when well defined, indicates intelligence, success in science and in occult studies, the love of work and activity, both of mind and body and eloquence; in excess it gives impudence, theft and falsehood: absence of the mount indicates no aptitude for science, no intellectuality—a negative existence. Of course, should the Mount of the Sun be well defined, the last quality would be overridden by the success which that indicates.

The Mount of Mars is at the side of the hand opposite the thumb, just below the Mount of Mercury, and, when well developed, indicates courage, ardour and resolution; in excess it gives cruelty, anger, revenge and tyranny: the absence of the mount gives cowardice and want of self-command.

The Mount of the Moon is found immediately below that of Mars, and, when well developed, gives imagination of the dreamy, sentimental order, gentle melancholy and love of solitude; in excess it gives morbid melancholy, caprice and fantastic imagination: the absence of the mount indicates want of poetry in the nature, positivism.

The Mount of Venus, which is formed by the root of the thumb, indicates, when fairly developed, love of the beautiful, melody in music, the desire of pleasing and sensuous tenderness; in excess it gives love of material pleasures, coquetry, inconstancy and (when other signs, afterwards to be explained, are also seen in the hand) extreme sensuality.

Each planet has a special influence over certain parts of the body. Jupiter governs the head and lungs; Saturn, the spleen and ears; the Sun, heart, eyes and arms; Mercury, the liver and legs; Mars, the head and throat; the Moon and Venus, the lower parts of the body. Any excess in the length or size of the fingers or mounts argues a tendency to disease in the organs represented by that finger or mount. When a mount is—instead of being high—broad and full, it gives the same indications as if it were high; if much covered with lines it shows an overabundance of the quality of the mount, and is equal to an excess of height. *One* deep perpendicular line upon a mount is a fortunate sign; *two* show danger of too great force of the quality; and *three* give misfortune arising from excess of the qualities of the mount. Crossway lines on the mount always denote obstacles. Some old Italian writers affirm that fine cross lines on a mount signify wounds to that part of the body over which the mount on which they are seen has influence.

The mounts are often irregularly placed. If one should lean towards the other, it absorbs some of the qualities of the mount which it invades.

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To face Chapter XVII.

CHAPTER XVII.

THE LINE OF LIFE

The ancient Chiromancists divided the Line of Life into ten compartments (see plate), each representing ten years of life, and thus they were enabled to prognosticate at what date in the life the illnesses or dangers indicated by the form or colour of the line would be likely to happen. This plate is copied from one in the Sieur de Peruchio's interesting work, *La Chiromance*, published in Paris in 1657.

It will be noticed that the mounts are here indicated by the astrological symbols of the various planets they represent, Mars being placed on the Plain of Mars, and again on the Mount of Mars, which, as we have already seen, lies immediately below the Mount of Mercury, It will also be seen that the signs of the zodiac are also represented on the hand: Aries (March), which begins the astrological year, is placed at the base of the hand, close to the Mount of Venus; Taurus (April) is on the Mount of Venus; Gemini (May) is at the base of the Mount of Jupiter. These represent the spring-tide of the year, and also of life: therefore they are placed on and near Venus, which planet represents happiness and enjoyment. The signs Cancer (June), Leo (July) and Virgo (August) represent the second age, which is given to the accumulation of riches and honours: so these signs appear on the finger of Jupiter. In the third age a person is supposed to enter upon the enjoyment of dignities, therefore Libra (September), Scorpio (October) and Sagittarius (November) are on the third finger, that of the Sun, which is supposed to accord position and reputation. The last months of the astrological year are thus placed: Capricornus (December) is beneath the Mount of the Sun; Aquarius (January) is on the upper part of the Mount of the Moon; and Pisces (February) will be seen at the base of the Mount.

When the Line of Life is long, well-formed, slightly coloured and goes all round the thumb, it indicates a long life and free from serious illness; but when the line is wide and pale in colour, it indicates bad health; when it is short, it means early death.

If the Line of Life is broken on one hand, but is marked in a continuous line on the other, these signs indicate an illness of a very serious nature; but if the broken line should appear in *both* hands, it means death at the epoch corresponding with the place on the line where the break occurs. When the Line of Life is not clearly defined, but is formed by a sort of chain of small lines, it indicates continuous small illnesses.

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When the Line of Life, instead of starting from the side of the hand, takes its rise in the Mount of Jupiter, which is sometimes, but rarely, the case, it indicates a life of successful ambition, honours and celebrity—qualities given by the influence of Jupiter.

If the Line of Life joins the Line of the Heart and the Line of the Head, it indicates grave misfortune or violent death, by which the ancients probably meant to infer that when the heart and the head are dominated by merely vital instincts, the life is menaced by misfortune, but, when the Line of Life is *very far* from the Line of Head, it indicates a life that accomplishes its course without much intelligence; so also if the Line of Life is very far from the Line of Heart, it indicates a life without love.

When the Line of Life is bi-forked at its termination, near the wrist, it means a total change in the way of life towards its close and, should one of the branches tend towards the Mount of the Moon, it indicates madness towards the end of existence. A double Line of Life is sometimes, but rarely, seen: this indicates excess of health and long life and also success in a military career. This line is sometimes called the Line of Mars. To a woman it indicates success in love. Three stars inside the line, but so close to it as to be almost on it, show that the subject will be much loved of men or women as the sex will determine, but that these signs will bring distress.

A circle on the Line of Life shows loss of an eye or disease of the eye at the period at which it appears on the line. If two circles appear the person will become blind. If the Line of Life terminates with many small lines it means slight illnesses towards the close of life.

A woman having two crosses on the upper part of the Line of Life is sensuous and immodest. A line going from the Line of Life and terminating with an island on the Mount of Jupiter shows lung disease or pleurisy at the time where such line starts. If at the end of the Line of Life, towards the wrist, there is a small triangle, it denotes loquacity and falsehood; but with a good Line of Head and Heart, tact and eloquence.

When the Line of Life throws branches upwards towards the Plain of Mars it means that, after long struggles, riches and honours will be acquired in old age. A line upwards from the Line of Life to the Mount of Jupiter shows success by the subject's own merits. This often makes its appearance quite suddenly.

A black spot on the Line of Life indicates an illness or some misfortune which affects the health. Lines going from the base of the thumb across the Mount of Venus and cutting the Line of Life denote illness from money worries if they stop at the Line of Head; and from heart troubles if they go direct to the Line of Heart. A line going from the Line of Life straight to the Mount of Saturn indicates accident from a four-footed beast. A line going from the Mount of Venus to the Line of Heart and terminating with a fork shows separation after marriage.[17] When this is seen, in conjunction with an island on the line of Fate, it has a worse indication—that of adultery and divorce. *One* deep line going from the joint of the thumb across the Mount of Venus and just cutting the Line of Life indicates a deep heart sorrow from the death or faithlessness of someone much loved.

CHAPTER XVIII.

THE LINE OF HEART AND LINE OF HEAD

The Line of Heart is placed immediately beneath the mounts at the root of each finger. This line, when clear, straight and well coloured, rising in the Mount of Jupiter and extending to the outer edge of the hand, signifies that its possessor has a good heart capable of strong affection. If, instead of commencing on the Mount of Jupiter, it does not take its rise till the Mount of Saturn, then the love will, in that nature, be rather of a sensual character. The Line of Heart sometimes stretches across the whole of the hand;

such a line announces a too great amount of tenderness—a passionate and blind devotion in affection.

When the Line of Heart is broken in several places, it means inconstancy, both in love and friendship. Should the breaks be seen immediately beneath the Mount of Saturn, it indicates a tragic end to the love; if beneath the Mount of the Sun, by pride;[18] but if between the Mount of Saturn and the Mount of the Sun, the heart-break will be occasioned by folly; if between the Mounts of Apollo and Mercury, by cupidity—the desire to make a better marriage in a worldly point of view; if the break occurs immediately beneath the Mount of Mercury, the evil issue of the love will be from caprice.

When the Line of the Heart appears in the form of the links of a chain instead of in one clear line, it indicates inconstancy and indecision—a tendency towards a series of *amourettes* rather than to a high and serious affection. If it goes round to the percussion of the hand it indicates jealousy.

The Line of Heart of a deep red colour indicates a power of love ardent even to violence; but when, on the contrary, the Line of Heart is pale and wide, it is an indication of coldness of temperament.

When, at its starting-point, the Line of Heart is seen to turn round the base of the Mount of Jupiter somewhat in the form of a circle, it is what the ancient Chiromancists called "Solomon's Ring," and indicates an aptitude for the occult sciences. If the Line of Heart joins the Line of Life between the thumb and forefinger, it is a sign (if the mark is in *both* hands) of a violent death; if only in one, of a serious, but not fatal, illness connected with the heart.

Should the Line of Heart droop towards the Line of Head and touch it, it is a sign of coldness in the affections: the instincts of the heart are swayed by worldly considerations. Red punctures on the Line of Heart mean as many wounds in the

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affections as there are spots. White spots, on the contrary, show the persons of the opposite sex who, at some time of the subject's life, have given him, or her, a strong love. Should the spot be at the beginning of the line, above the Mount of Venus, the person will have the appearance and qualities given by that planet; if under the Mount of Jupiter he would be a Jupiterian; if under Saturn he would have the appearance and character of a Saturnian; under the Sun of a Sun person; if under Mercury the appearance and character would be those of a Mercurian; if near the side of the hand, of Mars; and if quite at the percussion of the hand, the qualities and physical appearance given by the Moon would describe the person.

If, on starting, the Line of Heart is bi-forked and one branch of the fork rises towards the Mount of Jupiter, it indicates great happiness of a glorious nature; but if the other branch stops between the finger of Jupiter and that of Saturn, it is merely negative happiness—a life passed without great misfortunes. When a hand (but this is rare) is entirely without the Line of Heart it indicates an iron will, wickedness and cruelty, unless the Ring of Venus is deep and goes towards the Mount of Mercury, in which case it would supply the place of the Line of Heart.

The Line of the Head rises between the Line of Life and the Mount of Jupiter and, when it is long and clear, it denotes a sound judgment, good memory and masterly intellect; but it must not extend across the hand in a *straight line*, as that signifies a disposition to avarice, or at any rate of extreme economy, because unless corrected by a rich Line of Heart, it would indicate an excess of calculation in the character.

If the Line of Head is long, but droops towards the Mountain of the Moon, it signifies ideality in excess. Life and its numerous duties and cares will be considered from an artistic and unreal point of view, for the Mount of the Moon, it will be remembered, represents imagination in excess, romanticism and superstition; and if the Line of the

Head droops very low to the Mount of the Moon, it indicates more than superstition—it is then mysticism.

If, instead of drooping towards the Mount of the Moon, the Line of Head rises towards the mounts at its close, the intellect will partake of the qualities of that mount towards which it rises: thus, if it rises beneath the Mount of Mercury, the intellect will be employed successfully in affairs or on the stage; if towards the Sun, in art and literature.

The Line of the Head pale-coloured and wide indicates a want of intelligence; so also does a very short line, only extending half-way across the hand. This is often seen in persons of medium intellect.

The Line of the Head broken in two immediately under the Mount of Saturn means, where the sign is on both hands, death on the scaffold, or at least, a fatal wound on the head. When this sign appears in only one hand (no matter which), it indicates a probability of madness from an unfortunate passion, or a broken limb, or a blow, but not fatal, on the head. When it is broken under the Mount of the Sun it shows injury to the right arm or, in a very artistic hand, illness from over-strain of the mental powers.

If the Line of the Head is long, thin and not deeply marked, it shows infidelity and treachery. If, towards its close, it mounts suddenly to the Line of the Heart, it signifies early death.

When the Line of Head is cut by a number of small hair lines, it indicates continuous nervous headaches; a cross in the middle of the line is a sign of approaching death, or of a mortal wound.

When the Line of the Head is not joined to the Line of Life at its starting-point, it indicates self-confidence and impulsiveness, jealousy and that sort of untruth which springs from exaggeration of facts, from over-impressionability. With the planets of

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Mars and Jupiter in excess, the Line of Head separate from the Line of Life gives audacity and enthusiasm and, therefore, success.

If large, round, red spots are seen on the Line of Head, they indicate so many wounds on the head; whilst white spots on the Line of the Head indicate as many successes in literature as there are spots to be seen.

A star on the Line of Head means a wound on the head, or madness if the line droops much to the Mount of the Moon, and the star appears at its termination.

A sister (or double line) of Head is rarely seen; but if it appears it is a sure sign of fortune by inheritance.

CHAPTER XIX.

THE SATURNIAN LINE

When the Saturnian Line starts from the wrist, exactly below the finger of Saturn, and goes in a direct line to it, cutting through the mount, but stopping at the root of the finger, it is a sign of a life of extreme happiness. If the line goes toward the mount of Jupiter, this happiness is the result of a marriage bringing both riches and love. If the Saturnian Line stops short at the Line of Head, it is misfortune in affairs through a false calculation; or, taken in conjunction with a troubled Line of Life, it would mean a physical brain affection.

If the Saturnian Line is straight and well-coloured at its termination—that is, as it nears the finger of Saturn—it indicates happiness and success in old age, however troubled the life may have been before. If this line only starts from the Line of Head, it denotes poverty and stupidity.

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The age, on the Saturnian Line, is counted from the wrist upwards; from the wrist to the Line of Head chiromancists count thirty-five years,[19] from the Line of Head to the Line of Heart fifteen years; and from the Line of Heart to the root of the finger are the remaining years of Life.

If the Saturnian Line is broken and irregular, it means trouble and worry in life; and according to whether these breaks occur on the Line of Head or on the Line of Heart, so will the troubles be of the head or heart—troubles arising from affairs or from the affections. If the Line of Life be irregular, denoting uncertain health, these troubles may be physical evils to the heart or head.

Short Lines crossing the Saturnian show vexations in either the affairs or in love-matters. A downward branch from the Saturnian going towards the Moon shows sorrow from the death or treachery of a woman. This is the same whether it be on a man's or a woman's hand.

If the Saturnian Line is twisted in a sort of spiral at the starting-point, but yet the upper part of it goes in a clear, direct line to the Mount of Saturn, and cuts through it to the root of the finger without penetrating beyond, it indicates a troubled and anxious youth, followed by riches and good fortune in middle age. If the twisted line continues and crosses the Line of the Head and the Line of the Heart, the troubles will continue until old age, and the good fortune be only quite at the close of life. A triangle, or small island, at the commencement of the line, shows death of the father or mother in early childhood.

If the Mount of Saturn is much wrinkled, and the Saturnian Line cuts through it, and is of a deep-red colour, and mounts as high as the third joint of the finger of Saturn, it indicates a violent and disgraceful end—death on the gallows. Upward lines from the Saturnian Line mean events of happy omen either in the affections or affairs at the age shown on the line; downward lines have the reverse signification.

There are some hands in which the Saturnian Line is very faintly indicated and, when this is the case, it signifies an uneventful, insignificant existence. The Esquimaux, for example, who live in a wretched climate, and live hard, unlovely lives, have absolutely, some of them, *no* Saturnian Line in their hands; and M. Serres, a famous French anthropologist, asserts that this line (which he calls the Caucasian Line) is only to be found in the hands of the white races; whilst M. Desbarrolles, another French writer on this subject, goes farther, and affirms that, among persons condemned to a dry, unintellectual vegetative life, even among the white races, the Saturnian Line is often found entirely wanting.

The Saturnian Line is one of great importance, for it corrects and modifies the significations both of the lines and of the mounts.

A double Saturnian Line, which is sometimes, but very rarely, seen, indicates great moral corruption and physical infirmities, brought about by abuse of material pleasures. A cross upon the line shows a change of position or a crisis in the affections at the age indicated by its position on the line. A star on the line shows disaster at the date at which it appears.

Downward lines from the Line of Heart towards the Fate Line show heart sorrows at the period when they cross the line. Widowhood is indicated in this way if the Line of Fate breaks and shows a total change in the way of life immediately afterwards. It sometimes only means a death at the period when it crosses the Fate Line.

CHAPTER XX.

THE LINE OF THE SUN AND LINE OF HEALTH

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The Line of the Sun takes its rise either in the Line of Life or from the Mount of the Moon, and, ascending, it traces a furrow in the Mount of the Sun, but stops at the root of the finger; it signifies, when straight and well defined, and taking the course we have described, celebrity in literature or art, whether in poetry, painting, sculpture, or music. The mounts decide in some measure which branch of art is preferred. With Venus large it would probably be music or painting; with the Moon much developed, poetry—or at any rate literature of an elevated kind. Those having the Line of Sun thus traced, even who are not artists by profession and whom destiny has placed in quite inartistic careers, will always have artistic tastes, eye for colour, ear for music, or a perception of beauty in form or in language. Where the line only begins in the Line of Heart the artistic feeling is only appreciative, not productive, but when it rises as low as the Mount of the Moon, it signifies *creative* power.

If the Line of the Sun subdivides, in traversing the Mount of the Sun, into several lines, it indicates a tendency to cultivate several branches of art, which prevents the success which generally crowns excess of artistic feeling when confined in its expression to one especial art; it also indicates too great a struggle after effect in art; it is more significative of the dilettante, or patron of art generally, than the artist *pur et simple*. When the Line of the Sun, in its upward course, is barred by several transverse lines, there are obstacles in the career of art; but if the line continues and marks a single deep furrow in the mount till it reaches the root of the finger, these obstacles will, in the end, be conquered and success, riches, honours and celebrity will be attained. In a hand where the Sun Line begins above the Head Line, the deep line at its close only means riches after fifty, and has nothing to do with art.

The Line of Health, or, as it is sometimes called, the Line of the Liver, takes its rise at the wrist, near the Line of Life, and mounts in the direction of the Mount of Mercury. If it is well coloured and the line is not broken, it denotes good health, great power of memory and success in business pursuits; if the line becomes broken, or is forked at its

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close, before it reaches the mount, it indicates severe illness in old age. If this line starts from the Line of Life it is a sure sign of weakness of the heart's action. If the line is unequally coloured and gets redder as it crosses the Line of Head, it indicates a predisposition to apoplexy; if it stops suddenly on the Line of the Heart, a serious physical heart affection is likely.

The Line of Health sometimes takes a curved form on *one* hand, forming a sort of half-circle, from the Mount of the Moon to the Mount of Mercury. In this case it is called the Line of Presentiment and indicates vivid intuition, especially if Mercury is strong in his influence. When the Line of Health on *both* hands takes this form, it indicates mediumistic powers and powerful second sight. Should there be a long island at the starting-point, that is, near the Mount of the Moon in the Line of Presentiment, it indicates somnambulism.

When the Line of Health forms a large and distinct cross with the Line of Head, it shows a disposition for the study of occult science, but this is not the mystical cross which will be described farther on. An island on this line shows some internal illness at the date on which it appears on the line—that is, if before it reaches the Head Line, it would be *before* thirty-five; if after and between the Lines of Head and Heart, it would be between thirty-five and fifty; if later, during the remainder years of life. A twisted Liver Line is a sign of biliousness and indigestion; if it is of a red colour (as it frequently is where Mars is one of the ruling planets) it shows a tendency to feverish complaints.

The Line of Health is sometimes, but rarely, accompanied by another line called the Milky Way; when this line commences side by side with the Line of Health and mounts with it in an unbroken line, towards the finger of Mercury, it signifies a long life of uninterrupted happiness. This line, which is sometimes called the Via Lasciva, gives ardour in love, because a super-abundance of health gives force to passion.

CHAPTER XXI.

ON THE RING OF VENUS, THE WRIST LINES AND THE LETTER M TO BE SEEN IN MOST HANDS

The Ring of Venus seems to enclose, as in an island, the Mounts of Saturn and the Sun; this line is not seen in many hands and, when fully developed, signifies unbridled passion and debauchery of all kinds when, in conjunction with it, the Mount of Venus is strongly developed and marked with crossway lines.

If, with the signs mentioned above, the Ring of Venus is strongly marked, yet *broken* at its centre in *both* hands, it is a sign of eccentric and depraved passion; still, there are always modifications of these bad signs, and a very good Line of Head would, by bringing reason to bear upon passion, considerably mitigate the evil indications of the broken ring.

When the Ring of Venus is seen on a hand where both the planets Venus and the Moon are strongly indicated and where it is traversed by innumerable fine lines, it is a true sign of an hysterical temperament.

Sometimes the Ring of Venus will be seen to ascend and lose itself on the Mount of Mercury, leaving one end of the semicircle open, which mitigates, in some sort, the terribly strong instincts of voluptuousness indicated by this mark; but if, on the contrary, the semicircle, after extending itself to the Mount of Mercury, closes itself at the root of the finger, such a mark in the hand would indicate a terrible and absorbing power of passion, which would not hesitate at any means to secure its end.

A line traced on the wrist is a sign of long life and, if there are three of these lines, as is sometimes seen, it forms the triple bracelet. These lines indicate, in Chiromancy, thirty years of life each and the three lines form what is called the magic bracelet, indicating long life, health and riches. If these lines are formed irregularly, like the links of a chain,

and more especially if the first one—that next the hand—is so formed, it indicates a long life of labour, but acquiring ease and competency at its close. If a cross appears in the centre of the wrist, it indicates a rich heritage at the close of life.

When lines start upwards from the bracelet, and ascend towards the Mount of the Moon, they denote as many travels by land as there are lines. If a line starts from the wrist and, after traversing the Plain of Mars, goes to the Mount of the Sun, such a line presages riches and honours coming from royalty.

When these travel lines go as high as the Line of Head and Heart, they denote journeys during which some person is met who influences either the fortunes or the affections, according to whether the line stops at the Line of Head or Heart.

Lines lengthways on the Mount of the Moon mean sea-voyages; if these lines terminate with a star, it denotes shipwreck; if on both hands, death by drowning.

The letter M, formed more or less regularly in every hand by the Line of Life, the Line of Head and the Line of Heart, represents the three worlds—the material, the natural and the divine.

The first, the Line of Life, surrounds Love and Generation, as represented by the thumb, which is, as we have seen, sacred to Venus—the material world, or world of sense—but the Mount of Venus may either degenerate love to vice, or perfectionate it to tenderness. With high instincts the Mount of Venus is a good quality, since, *without it*, all the other passions are hard and selfish.

The second line—the Line of the Head—stretches across the natural world; it traverses the Plain and the Mount of Mars, which represent the struggle of Love and Reason in existence—the natural world, life as it presents itself to most persons. There is in the hand the Plain of Mars and the Mount of Mars; both mean a struggle: the Mount is the

struggle of resistance; the Plain of Mars (which is between the Lines of Head and Heart) is the struggle of aggression.

The third line, that of the Heart, encloses the divine world, for it surrounds the mounts which represent Religion, Jupiter; Fate, Saturn; Art, the Sun; Science, Mercury; all of which are especially influenced by the astral light, or fluid, emanating from the planets.

According to the proportions—the relative proportions—which these three lines bear to one another, so the life is influenced by the three different worlds represented. Thus we have a hand in which material (sensual) pleasure dominates: the line of the material world enclosing a space greatly superior to that of the two others. It is needless to give further examples of these differences, for, after all, this matter is but a *résumé* of what has been said before about the power of correction which one line has over the others. Given a wide range to sensual pleasure in the hand, but a good and extensive Line of the Head, the former will be corrected by it, as reason dominates passion; or given the strong powers of sensuality, with a wide range to the divine world by the space occupied between the Line of Heart and the mounts, and again, religion, love of art and science, will correct and keep under extreme sensuality. In reading the hand, each line must be judged with reference to the others, and the hand must be considered in all its bearings, before an opinion on the tendencies it indicates can be arrived at with any degree of correctness.

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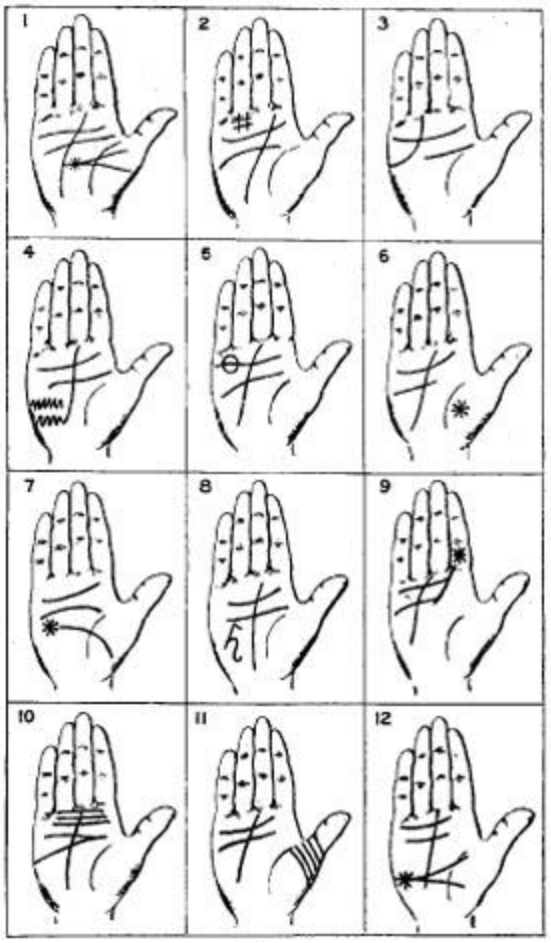

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CHAPTER XXII.

CONCERNING CHANCE LINES; THAT IS, LINES WHICH ARE SOMETIMES—BUT ONLY RARELY—SEEN ON ANY HAND

When two lines, starting from the Mount of Venus, join with a star on the Plain of Mars (see Plate 3, Fig. 1) it indicates two loves carried on at once and both having a disastrous issue.

A square with spots at all four corners placed on the Mount of the Sun (see Fig. 2) shows danger by fire with preservation.

A line from the Mount of Mars going to the Mount of the Sun (see Fig. 3) indicates love of glory, desire to attain distinction in life. A person with this mark in his hand would be stimulated rather than intimidated by a large audience, and would have great success in addressing multitudes. This line is good for soldiers, orators and actors, as it shows force, energy and moral as well as physical courage.

The figure of the sign Aquarius when seen on the Mount of the Moon (see Fig. 4) is a certain sign of death by drowning, *even when marked on one hand only*.

A circle on the Heart Line beneath the finger of Mercury (see Fig. 5) denotes the person as likely to cause—though unwittingly—the death of someone much loved.

A star on the Mount of Venus, low down on the Mount (see Fig. 6), indicates a man or woman who shall fall into dishonour by reason of sensual indulgence or unnatural vice.

A line starting from the Wrist Line, crossing the Mount of Venus and ending in a star on the palm of the hand (see Fig. 7), indicates that the person will lose some dearly-loved friend in a tragic manner.

The symbol of the planet Saturn, when seen in the palm of the hand (see Fig. 8), denotes the person to be malicious beyond expression, and likely to cause the death of someone by poison.

A line starting from the Head Line going through the Mount of Jupiter with a star (see Fig. 9), is an indication of a violent death before the age of thirty. Should the person be ruled by Venus, by poison; if under the Moon, by drowning; if under the Sun, by fire; if under Mars, by firearms; if under Jupiter, by horse accident; if under Mercury, by fits consequent on loss of money.

The Saturnian Line, crossed by transverse lines on the Mount of Saturn (see Fig. 10), indicates dangerous, but not fatal, wounds on the head.

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Many rings encircling the thumb (see Fig. 11) indicate an amorous and very inconstant disposition in either man or woman.

Two lines starting from the middle of the Mount of Venus and terminating in the form of an apex on the Mount of the Moon (see Fig. 12) indicate a great tendency to hysteria and to abnormal attachments; the latter is more especially indicated if Saturn and the Moon should be the ruling planets.

CHAPTER XXIII.

CONCERNING THE FINGERS AND THUMB AND NAILS

As the shapes and relative proportions of the fingers to the palm modify the indications given by the lines and mounts, it is necessary to consider them very attentively before giving a judgment in Chiromancy.

Fingers longer than the palm and with pointed tips show idealism; they are the expression of the Moon's influence when she is well-dignified at a birth. The Mount of the Moon in these hands would always be large. People with these fingers see everything in the golden light of imagination and find happiness in dreams of intangible beauty; poetical expression (ethereal, not passionate) is their natural language. They always incline to the marvellous—the sublime, the spiritualistic side of all things. Theirs the belief in omens, in occult literature, in the supernatural. Without, perhaps attaching themselves to any fixed creed, they are, by nature, worshippers; and the mysterious moan of the sea, the song of the brook, the roar of the torrent, and the sighing of the wind, are to them but so many revelations of the Deity. They are loyal to old associations and are never in advance of their age. They are easily moved to tears and are graceful in all their gestures. They can, in exalted moments, do without the necessaries of life and yet, from their intuitive worship of the beautiful, they are lovers

of the luxurious superfluities which make up an elegant and refined existence. People with these fingers do not age much; their hearts are eternally young, for they live a life of perpetual illusion and though often, alas! necessarily disappointed in both men and things, they never entirely lose faith in the poetry of existence.

Fingers the same length as the palm, and with slightly pointed tips, show refinement, correct taste and love of art—these are the fingers of those born under the dominant influence of the Sun.

Fingers the same length as the palm, but fleshy at their base and square at the tips, show practicality, family affection, love of animals, good judgment, respect for the world's opinion and much appreciation of material comfort. These fingers show the strong influence of Jupiter.

Long fingers, knotty at the joints and with square tips, show reasoning power and taste for science. Persons with these fingers are always in harmony with progress and have little or no veneration and are, therefore, never stirred by associations; with the antiquity of Catholicism, its mystical and somewhat sensuous worship, its celibate priesthood and golden aureole of saints and martyrs, persons having these fingers have no sympathy. If they belong to any fixed creed (and their logical powers are rather against this) they prefer Protestantism—or its offshoot, Dissent—where their real deity, Reason, is permitted full sway. These people love—with all the force of their nature—the study of history, jurisprudence, mathematics and the exact sciences. They are naturally clever at calculation and have much sense of order. Such fingers show the influence of Saturn, but not when most dignified; Saturn when most exalted gives mysticism, but then the fingers are not knotted at the joints and the tips are always spatulated.

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Fingers that are shorter than the palm and with spatulated tips, show sensuality in love and materialism in all things, energy, love of field sports and indomitable courage. Such fingers indicate the influence of Mars at birth.

Fingers shorter than the palm, but with very pointed tips and thick at the base, show self-indulgence and love of luxury. Persons with such fingers are very sensuous and are, therefore, ardent pursuers of material pleasures, but yet with a certain refinement of taste which prevents their becoming grossly sensual. Such fingers are often seen in the hands of singers of both sexes; they indicate the strong influence of Venus in the nativity.

Fingers that are slender and longer than the palm, but with spatulate tips, indicate versatility, wit and intuitive perception. Such fingers show the dominant influence of Mercury.

In the relative lengths of the three divisions of the fingers Chiromancy also recognises the indications of three separate influences—that of the soul, that of the mind, and that of the body. Fingers that have the first division (that containing the nail) long, show high aspirations and power of veneration—soul; fingers with the second division longer than the other two indicate intellectual force—mind; whilst fingers having the lowest division longest show a love of material pleasure: people having such fingers, unless there are other modifying indications in the hand, are slaves to the body.

The first joint of the thumb (that which is nearest the nail) represents *Will*; therefore, when this is short, such a form indicates want of will—a character very impressionable and therefore easily led; when this joint is long, it indicates great power of will and therefore force of character. The second joint represents logic, judgment and reason; therefore, where this joint is long these qualities exist in excess and, where it is short, they are wanting in both.

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The third joint (that which is outside the Mount of Venus) represents the power which love—more especially the love between the sexes—will have on the character. If long and thick it implies the existence of strong passion; if short and flat a cold disposition—no attraction towards the opposite sex.

Poets have frequently the first joint of the thumb short (because want of will gives the rein to impulse and impressionability), and whilst the second—the intellectual one—is fairly long, the third is almost always large, full and long. This combination of impressionability, intellectuality and warmth of passion gives us the poets full of "the sweet, sad music of humanity."

These various types of finger-tips are often seen in the same hand, which shows that several planets have much the same amount of influence, in which case the following indications should be considered: The finger of Jupiter pointed gives idealistic religion and sense of honour; square, it would show reasoning power; spatulate, energy and impulse.

The finger of Saturn is rarely pointed, but when it is so, it rather mitigates the melancholy given by the planet and shows callousness and (if Mercury is strong in the hand) frivolity. Square tipped, it indicates prudence, love of agriculture and mechanical genius; spatulate, which is the ordinary termination of this finger, it betokens sadness and superstition, and, when the finger is abnormally long, a tendency to suicide; especially where, with it, there is a small weak thumb.

The third finger—that of the Sun—pointed shows idealism and artistic tastes; when square-tipped, realism in art and a love of wealth; spatulate, it gives spirit of adventure, especially when it is as long as the first finger; when the third finger is *longer* than the first and spatulate it indicates love of gambling and of speculation.

The fourth finger—that of Mercury—pointed shows occultism, intuitive perception, eloquence and talent for languages; square at the tip it denotes logic, facility of

expression, science and love of research; spatulate, it gives movement, vivacity and, where the rest of the hand is bad, knavery in business and theft; a very short little finger shows unselfishness and, some old writers say, happiness in marriage.

A pointed thumb gives impressionability; square at its tip, decided but not obstinate will; the thumb bending outward shows generosity and impulse and, when much bent inwards towards the palm of the hand, avarice and reticence. People with short fingers are quicker, more impulsive and have more intuition than those who possess long fingers. Those with long fingers have much love of detail—often to a worrying extent; they are inquisitive and somewhat distrustful.

As regards the nails, short strong nails show courage, combativeness and critical faculties. White polished and filbert-shaped nails indicate sensitiveness and refinement, but no force of character. Short, weak, crooked and black-coloured nails show deceit and slothfulness. Round nails indicate a luxurious, pleasure-loving nature. Very thin nails—especially when the tips are bent inwardly—show delicacy of constitution. Red nails with little white marks on them indicate a choleric and cruel nature.

Those who have on the root of the thumb—that is, on the Mount of Venus—many crossbar lines are sensual and prone to gross indulgence in licentiousness. They who have these marks on their hands will have in their nativity—Venus in the 6th or 8th house (which houses rule the lower parts of the body), thus showing the entire concordance of Chiromancy with Astrology.

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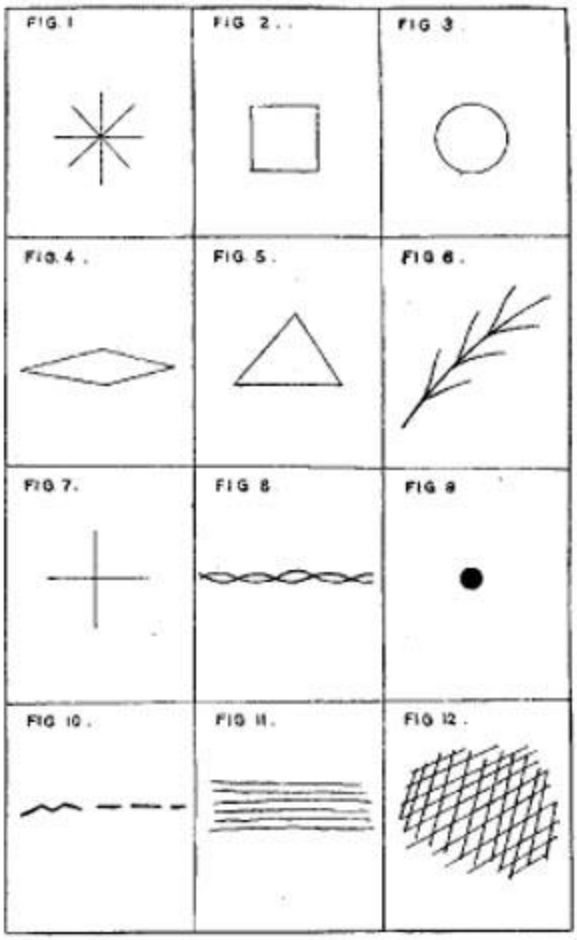

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CHAPTER XXIV.

OF THE VARIOUS MARKS TO BE SEEN ON THE HAND

Besides the Lines and Mounts already described there are other signs or marks which, as they modify the qualities given by the lines and mounts, should be carefully considered in giving judgment on the hand as a whole.

A star (Fig. 1) indicates something beyond our own power of action—a fatality for good or evil over which we have, personally, no power. A star on the Mount of Jupiter

indicates honours and distinction in marriage and great and unexpected glory, for Jupiter is always a favourable planet.

A star on the Mount of Saturn means assassination or death on the scaffold; or, in an otherwise good hand, death by paralysis.

A star on the Mount of the Sun (with no Line of the Sun) indicates fatal riches, which bring of themselves unhappiness in the affections. Should the Sun line be strong it would signify success in art, or military glory in a hand where Mars is strong.

A star on the Mount of Mercury shows theft and dishonour; on the Mount of Mars, death in battle; but a star on the plain of Mars, military glory.

A star on the Mount of the Moon, when on a voyage line, means death by drowning; when not on a voyage line, an illness connected with water, such as dropsy or diabetes.

A star in the centre of the hand shows that some person of the opposite sex will influence the life in an unhappy manner.

A star on the Mount of Venus means unhappiness caused by love.

Two stars on the top joint of the middle finger indicate death on the scaffold.

A square (Fig. 2) shows power and energy of the qualities of the mount on which it appears, except on the Mount of Venus, when it means imprisonment. A square announces preservation from accident when seen near any indication of such accident.

A circle (Fig. 3) on any of the mounts, but above all on the Mount of the Sun, signifies success in the qualities given by the mount on which it appears; but a circle on the lines of the hand has always a bad signification. A circle on the Line of Life means loss of one eye, and two circles would indicate total blindness.

An island (Fig. 4) is again always a bad sign; on the Line of Heart, it signifies adultery; on the Line of Life, illness, corresponding in time to its position on the line; on the Line

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of Head, it would mean ruin arising from false speculations, or if illness is shown on the Life Line, it might indicate brain illness or neuralgia; on the Line of Health, disorders of the liver and the digestion; on the Saturnian Line, an island indicates happiness from an adulterous liaison; but if the island is broken in shape, it indicates poignant grief arising from an illicit affection. The duration of these affections is shown by the size of the island. An island at the commencement of the Saturnian Line indicates an event of an unfortunate nature, probably death of father or mother, in childhood or very early youth. The lines which go lengthways round the side of the hand, between the Line of Heart and the root of the finger of Mercury, show the serious attachments. A horizontal line barring these, or a black spot, shows widowhood. If the lines take the form of islands, it shows love for cousins or near relatives.

A triangle (Fig. 5) announces aptitudes of a favourable signification. On Jupiter it shows diplomatic distinction; on Saturn, mystical ability; on the Sun, success in art or literature; on Mars, military glory; on Venus, happiness in love; on Mercury, distinction in law, physics, or mathematics; but on the Mount of the Moon it indicates danger from the water.

A branch (Fig. 6) shows aptitude in the qualities of the mount on which it appears.

Chains (Fig. 8) always show obstacles and worries in connection with the qualities of the mount on which they appear.

A spot (Fig. 9) is sometimes favourable and sometimes the reverse. Red spots on the Line of Heart mean physical suffering from that organ. White spots show love conquests, and the lover is indicated by the mount under which these spots appear by the physical description of the planet to which the mount belongs.

Curved lines (Fig. 10) mean disaster wherever they appear. On the Line of Head, madness, especially should the line droop to the Mount of the Moon.

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Hair-lines (Fig. 11) show an excess of the quality of the line on which they appear.

Cross-bars (Fig. 12) are always obstacles, and show excess in the qualities of the mounts on which they appear; on the Moon, morbid imagination; on Venus, lasciviousness.

Two lines going from the Mount of Venus to that of Mars denote the pursuit of two love affairs at the same time, and a star joined to these lines shows that the matter has ended or will end in disaster.

A long island, extending from the Mount of Venus to that of Saturn, shows, on a woman's hand, seduction at the age when the sign crosses the Line of Life. Should a square appear on the line, she escapes the temptation.

A Line extending from a star on the Mount of Venus, and terminating with a fork on the Mount of Saturn, shows an unhappy marriage.

A Line going from a star on the Mount of Venus straight to the Mount of the Sun, foretells a great inheritance from the death of a near relation.

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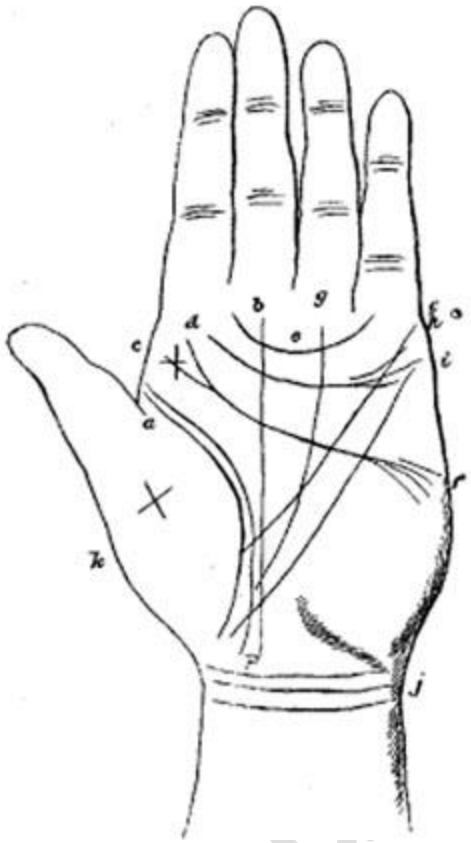

THE HAPPY HAND.

To face Chapter XXV.

CHAPTER XXV.

THE TRIANGLE, THE QUADRANGLE, AND THE HAPPY HAND

The Triangle is the name given to the space enclosed between the Line of Life, the Line of Head and the Line of Health. If the angle is an equal one and the lines well coloured, it signifies a good disposition both as regards mind and body and also much health, courage, good reputation and a long and happy life. When the angles of the Triangle are not well defined, it signifies a dull and mean person, who will not rise above mediocrity. When the Triangle is wide as well as clearly defined, it indicates liberality

and nobility of mind. When it is narrow, it signifies avarice, cowardice and poverty. If the Triangle is altogether wanting in a hand, it portends much evil, a short life and much illness. A cross in the Triangle shows a quarrelsome disposition.

The Quadrangle is the square space contained between the Lines of Heart and Head. When broad it signifies a liberal, courageous person with much sense of honour, who will attain to the highest dignities in his profession and position in life.

Those who have the Quadrangle narrow are covetous and deceitful, and therefore untrustworthy in all business relations. A star in the middle of the Quadrangle shows honours and dignities, and a line from the Mount of Mercury running down to the centre of the Quadrangle indicates the friendship of great men, and much honour and distinction from these friendships.

In the plate at the beginning of this chapter we have a sketch of what is called "The Happy Hand," which is given as showing what are the happiest prognostications to be shown on the hand. An explanation of the lines and marks of this is given below.

The explanation of the Happy Hand.

Double Line of Life, which means good health and long life. The Saturnian Line straight and well-defined till it reaches its termination on the Mount of Saturn, which shows happiness in domestic life and good fortune to the end of life. Branches at beginning and end of the Heart Line, power of passionate tenderness. Cross on Mount of Jupiter, love and marriage. Ring of Venus, power of passionate attachment and much force of sympathy. The Line of Head long with branches to the Mount of the Moon, intellectual gifts and vivid imagination. Direct Line of the Sun, success in art and celebrity. Union of Venus with Mercury, love and good fortune in connection with the affections. Line of Health strong shows a vigorous constitution. Triple branches on the wrist, superabundance of vitality and long life.

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A Cross on the Mount of Venus. This, taken in conjunction with the cross on the Mount of Jupiter, shows happiness in married life.

Of course it is seldom that such a conjunction of good lines is seen on the same hand; but still, in those born under a fortunate conjunction of the stars, many of these lines are seen together; but such hands are rare, for anxiety, grief and disappointment are the general rule and happiness the exception in this world.

Part III.

PHYSIOGNOMY

"La fisonomia è lo specchio dell' anima."—FINETTA.

CHAPTER XXVI.

PHYSIOGNOMY

"The face is the mirror of the soul," says Finetta, a mediæval Italian writer on the subject of physiognomy; and, to those who take the trouble to study the matter, the intelligence, the sentiments and the instincts of a person are all clearly manifested by the form of the head and features and their relative proportions, by the colouring of the skin, eyes and hair, by the fugitive expressions which, to an attentive observer, are seen to pass over even the most impassable faces, and "last, but certainly not least," by the lines left by the habitual passage of the expression of strong feeling, which, to the physiognomist, are visible even when the face is in repose.

Zaid n. adwan

We are in the habit of applying the term physiognomy to the *face* only, but the word has really a much wider signification. All things animate and inanimate have their physiognomy and, when judging of the character by the form of the features of the face, it would be impossible to ignore that given by the shape of the head, for, without altogether believing that the brain is mapped out in the manner described by phrenologists, there is no doubt that a good development of the front of the head shows intelligence, whilst a head which is inordinately protuberant at the back indicates the dominance of animal instincts in the organisation. If the back of the head is quite flat, it indicates coldness—want of passion in the nature. A head which is large just above the ears shows a tendency to anger and if the signs of benevolence on the brow and lips are entirely wanting it would mean cruelty; but in physiognomy the signs on both the head and face must be considered as a *whole*, and the qualities shown by *both* must be weighed one against another, before any right judgment can be arrived at. In this study, as in that of graphology and chiromancy, a deductive power of mind is required. Among twenty persons who may be sufficiently interested in physiognomy to study it, there will be scarcely more than one who will become a good physiognomist. One among the countless objections which have been urged against physiognomy is that many physiognomists make erroneous judgments; but, granted that they do so, it is their want of discernment, or more probably their want of deductivity—not the science—which fails.

There is a certain sort of *instinctive* power of judging character by the face, possessed by children and animals, which is in harmony with the theories of those who have thought and written most upon this interesting subject.

We are all of us—women, perhaps, more than men—daily influenced by this sort of *instinctive* physiognomy: for there are few people who do not, when they first see a stranger, form a judgment of him, in which they are, of course, only swayed by his outward appearance, although they may never have even heard the word physiognomy.

The *temperament* has an immense amount of influence over the character and this temperament is shown more especially by the colour and texture of the skin and hair. It is temperament which precipitates, or retards, the effects of illness and age and temperament is the result of the astral influence which presided at our birth.

These temperaments have been classified under four heads—viz., the sanguine or choleric, the lymphatic, the bilious and the melancholic.

The first, the sanguine or choleric, is the result of the astral influence of Mars and Jupiter; the lymphatic, of the Moon and Venus, but more especially the Moon; the bilious (which is especially the intellectual temperament) of the Sun and Mercury and the melancholic temperament is the result of the dominance of the sad planet, Saturn. The sanguine temperament is shown by a skin with a good deal of colour in it, either of a soft pinky white with a rosy peach-like colour on the cheeks, in which case it is Jupiter which dominates in the temperament, or of a deep red colour all over the face, when the sanguine temperament is dominated by Mars, the hair being red or brown, crispy or curling.

The lymphatic temperament is shown by a soft, pale skin of a thick dead white, the lips and cheeks being only slightly coloured; the hair is fine and long, but not thick, and is light, not golden, but rather colourless, or what the French call "*un blond cendré*"—that is, of an ash-coloured fairness, sometimes of a soft brown, when Venus is the dominating planet. The bilious temperament is the result of the combination of the astral influences of the Sun and Mercury, the planets which give artistic feeling and intelligence.

Those having this temperament have yellow skins of a soft, fine texture and when the Sun is the dominant planet they have a vivid colour in the cheeks; the hair of those of the bilious temperament is golden and is generally curly or wavy; if the melancholic temperament given by Saturn is in combination (and it is frequently so in the bilious

temperament) with the yellow-tinted skin of the bilious temperament, we find also the straight, deep black hair peculiar to the Saturnian.

The melancholic temperament is that of those born under the dominant influence of Saturn. People of this temperament are of a pale or livid, and, sometimes, of a greenish-tinted or earth-coloured skin and their hair is always of a dead black. It must be remembered that though one planet may dominate at a birth, there are always present others which have also their influences, though in a secondary degree, so no person is of *one* temperament without any admixture of the others, although one may and often does dominate the others.

Thus no one is *exclusively* sanguine, bilious, lymphatic, or melancholic. One person could be at once bilious, melancholic and lymphatic. We sometimes see the apparently contradictory temperaments of the melancholic and sanguine in the same person, but, generally speaking, one temperament dominates, modified by one or more of the others. This makes one of the sources of the variety of character we see in those about us, no one person having precisely the same modification of temperament, to say nothing of the difference of intellectual gifts. Now, as the temperament produces the character and the character the passions, it is very necessary, in order to be a good physiognomist that we should be thoroughly expert in being able to assign to each person under judgment the exact amount of domination of each of these four temperaments and this is only to be done by noting the colour and texture of the skin and hair. Aristotle has said that though there is a certain physiognomy of the whole person, the principal signs to guide us in a knowledge of human beings are to be found on the face; and this is perhaps because the skin of the face is somewhat differently constituted to that over the other parts of the body. It is more transparent than that of the other parts of the body, and thus more readily reflects the different colours—the vivid flush of joy, the blush of shame, the livid hue of envy, the pallor of fear, the different passions by which we are agitated. The face also is the seat of the eyes and the lips, both of which features (being

continually in movement) make the face, as the old Italian writer has said, "the mirror of the soul."

Even those who habitually deny the power given by a knowledge of the science of physiognomy admit that *in certain moments* they have been able to judge of what they could ask for from the expression they saw on the face of the person with whom they were dealing. Now, if this were so at one moment, why should it not be so always? When the soul is agitated, that agitation shows itself, at once, upon the face by the variation of its colours and by the contraction of certain muscles about the features. Both this changing of colour and this movement of the features vary according to the passions which produce the agitation and these different expressions most people can read at a glance. No one confounds the expression of happiness with unhappiness, of love with hatred, of hope with despair, of jealousy with trustfulness, of envy with sympathy. Habitual drunkards show their vice on their faces, even when they are perfectly sober; so also do the other vices show themselves by the lines left on the face by the constant recurrence of the contraction of the features when under the immediate and violent influence of the ruling passion. By dint of continually exercising the faculty of observation they come to see expressions and lines on the face which, though perhaps quite lost upon others, give them indications of character which are sometimes startling revelations. Here, again, is another objection which is often advanced against the study of physiognomy. Does it not, by laying bare the vices and weaknesses of human nature, induce a cynical opinion of human nature? No; for, whilst it makes us clear-sighted as to the vices, it also reveals to us many sweet and noble qualities in those by whom we are surrounded, which, perhaps, were never suspected by us. No one better understood his fellow-men, no one was ever more alive to "the sweet, sad music of humanity," than Shakespeare. His large-hearted, sympathetic nature gave him intuitive perception of character, and this, aided by his wonderful powers of observation, must have made him a physiognomist. He "looked quite through the thoughts of men," and yet, with all this

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wondrous knowledge of human nature, he says, "What a piece of work is a man! How noble in reason! How infinite in faculties! In form and moving how express and admirable! In action how like an angel! In apprehension how like a God!"

THE PLANETS' PLACES ON THE FACE FACSIMILE FROM AN OLD WOODCUT, DATE 1657

To face Chapter XXVII.

CHAPTER XXVII.

THE FOREHEAD AND EYEBROWS

"One part of the forehead," says a Chinese proverb, "shows our faculties, the other part the use we make of them." This is, in a great measure, true; for the form and height of the brow show the degree of thought and power of intellect, whilst the skin of the forehead, its colour, lines and tension, denote the passions and the state of mind. Though the skin of the forehead may be equally wrinkled in different faces, the forms which

these lines take vary very much. The first line next the hair, which is rarely seen till past middle age, is referred to the influence of Saturn; the second to Jupiter; the third to Mars; the fourth, over the right eyebrow, to the Sun; the fifth, over the left eyebrow, to the Moon; the sixth, between the eyebrows, to Venus, whilst Mercury is assigned his place on the bridge of the nose (see plate).

When the Line of Saturn is long and well-defined, it indicates the prudence and sagacity which ought to come with age; when it is broken or curved in an oblique manner it shows peevishness and avarice.

The Line of Jupiter, straight and clearly-defined, shows an honourable and just person; if broken or taking oblique curves it indicates a very voluptuous person.

If the Line of Mars should be long and clear, and stretching across the forehead in one continuous line, it denotes courage and much warlike ambition; if the line be broken, such a person will be a brawler and quarrelsome and will experience ill fortune in war.

The Line of the Sun being perfect and reaching nearly to the middle of the forehead, shows ambition, good judgment and success; being broken or oblique in its form, it shows egotism and love of money.

The Line of the Moon, clear and perfect above the left eyebrow, much imagination and also much travelling into strange places. When this line is broken or much curved, it indicates caprice and want of truth.

The Line of Venus, delicately marked and straight, shows tenderness and success in love matters; if broken and curved, the reverse.

If three lines appear in the place of Mercury across the bridge of the nose, they denote eloquence and wit; if more than three, loquacity and deceit.

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So much for the *lines* on the forehead. As to the *form*, Aristotle tells us that "a very large and prominent forehead shows stupidity"; it is quite true that men of the highest intelligence have foreheads of medium height, but exceptionally broad and full over the eyebrow.

A forehead which is very full over the eyebrows and rather low than high, shows intuitive faculty, artistic perception and idealism; we see this form of brow in all the antique statues of Apollo. A very projecting forehead, fuller above than below, and so large as to appear to dominate the whole face, is generally the forehead of a slow if not a dull intellect. A perpendicular forehead, well rounded at the temples, rather high than low and having straight, well-defined eyebrows, shows solid power of the understanding, love of study and power of concentrating the attention, but it is not the forehead of the poet, painter, or musician.

Arched foreheads, somewhat low, but full at the temples, with long, sweeping and mobile eyebrows, appear properly to be feminine, since they show sweetness and sensitiveness of nature.

High, narrow and wholly unwrinkled foreheads, over which the skin seems tightly drawn, are indicative of weakness of the will-power, want of imagination and very little susceptibility. They are the foreheads of narrow-minded, commonplace persons. Of course other features may soften these indications; intelligent eyes may give intellect, or a sweet and tender mouth feeling enough to, at any rate, diminish the unpleasant indications of this type of forehead.

Foreheads not altogether projecting, but having angular and knotty protuberances upon them, denote vigour of mind and harsh and oppressive activity and perseverance. To be in exact proportion, the forehead should be the same length as the nose. In Greek art, however, it is generally shorter, which gives softness and elegance to the face. It should be oval at the top, or somewhat square; if the latter, it gives more force—if the former,

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more sensibility of character. It should be smooth in repose, yet have the power of wrinkling when in deep thought, or when in grief or anger; for foreheads over which the skin is so tightly strained as never to change under these circumstances show a dull, unsensitive and unintellectual nature. A forehead should project more over the eyes than at the top, and there should be a small cavity in the centre, separating the brow into four divisions: but this should be so slightly accentuated as only to be seen when the forehead is in a strong light coming from above it.

When the eyebrows are far from each other at their starting-point between the eyes, they denote warmth, frankness and impulse—a generous and unsuspicious nature. A woman or man having such eyebrows would never be causelessly jealous. Eyebrows, on the contrary, which meet between the eyes in the manner so much admired by the Persians denote a temperament ardent in love, but jealous and suspicious: all Saturnians have these eyebrows.

Eyebrows somewhat higher at their starting-point, and which pass in a long sweeping line over the eyes, drooping slightly downwards at their termination, show artistic feeling and great sense of beauty in form. The Empress Eugénie's eyebrows are of this form, which gives a sweet and wistful expression to the face and which some old writers have asserted to be the sign of a violent death.

Eyebrows lying very close to the eyes, forming one direct, clear line on strongly-defined eyebones having the same form, show strength of will and extreme determination of character. This sort of eyebrow appears on the busts of Nero; but there its indications of determination are deepened with cruelty by the massive jaw and the development of the cheekbone by the ear. This form of eyebrow, in conjunction with other good indications, would mean only constancy in affection, power of carrying out a project despite all difficulties and taste for science.

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Eyebrows that are strongly marked at the commencement and then terminate abruptly without sweeping past the eyes, show an irascible, energetic and impatient nature.

Thick eyebrows, somewhat arched, show artistic perception of beauty in colour. Delicately marked eyebrows, slightly arched, indicate tenderness.

Eyebrows lighter than the hair show weakness and indecision. Eyebrows much darker than the hair denote an ardent, passionate and constant temperament.

Angular, strong and sharply interrupted eyebrows close to the eyes always show fire and productive activity. No profound thinker has weakly marked eyebrows, or eyebrows placed very high on the forehead. Want of eyebrow almost always indicates a want of mental and bodily force. The nearer the eyebrows are to the eyes, the more earnest, deep and firm the character; the more remote from the eyes, the more volatile and less resolute the nature.

Eyebrows the same colour as the hair show firmness, resolution and constancy; but in judging of the eyebrows it must be remembered that if form and colour give different indications, the *form* (as this also means that of the brow) gives the most important indication, the colour and texture of the eyebrow being secondary to its *position* as regards the eyes and forehead.

CHAPTER XXVIII.

THE EYES AND EYELASHES

The eye has been called "the window of the soul," and not without reason, for it seems more than any other organ to be capable of expressing all its emotions. The most tumultuous passions, the most delicate feelings, the most acute sensations, the eye expresses in all their force and in all their purity, as they arise and transmits them by

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variations so rapid as to give to the lookers-on the very image of that with which it is itself inspired; for the eye receives and reflects the intelligence of the thoughts as well as the warmth of the feelings.

The colours most common to the eyes are brown, grey, blue, hazel and black, or what we *call* black—for those eyes which appear to be black will generally be found to be of a deep yellowish-brown when looked at very narrowly; it is the distance only which makes them seem to be black, because the deep yellow-brown colour is in such strong contrast to the white of the eye that it appears black. There are also eyes of so bright a hazel as to seem almost yellow; lastly, there are eyes that are positively green. Very beautiful, too, are some of the eyes of this colour when they are shaded—as is very often the case—with long, dark eyelashes; but, though beautiful, they are not indicative of a *good* disposition.

Green eyes, although their praises are often sung in Spanish ballads, show deceit and coquetry. We sometimes see eyes which appear to be a combination of yellow, orange, and blue, the latter colour generally appearing in streaks over the whole surface of the iris, while the orange and yellow are set in flakes of unequal size around and at some distance apart; these eyes are indicative of originality, amounting, at times, to eccentricity. No commonplace person has this sort of eye; they show intellectuality, and, in most cases, literary ability.

There are eyes which are remarkable for being of, what might be said to be, no colour. The iris has only some shades of blue or pale grey, so feeble as to be almost white in some parts, and the shades of orange which intervene are so small that they can scarcely be distinguished from grey or white, notwithstanding the contrast of colours. The black of the pupil is, in these eyes, too marked, because the colour of the iris around it is not deep enough, so that in looking at them we seem to see only the pupil. These eyes are expressionless, for their glance is fixed and dead; they invariably belong to persons of

the lymphatic temperament, and they indicate a listless and feeble disposition, incapable of enterprise and a cold and indolently selfish nature.

Blue eyes are more significant of tenderness and of a yieldingness of purpose than either brown, black, or grey eyes. There are occasionally to be met strong characters with this tint of eye, but then they will be found to have other indications in the rest of their physiognomy which correct the delicacy and yieldingness of this coloured eye. Blue-eyed people are not inconstant, like those of the hazel and yellow eyes, but they yield from affection.

Angry, irritable persons have frequently eyes of a brownish tint, inclined to a greenish hue. Although the purely green eye of which I have spoken indicates deceit and coquetry, the propensity to greenish tints in the eyes is a sign of wisdom and courage. Very choleric persons, if they have blue eyes, have also certain tints of green in them and, when under the influence of anger, a sudden red light appears in them. Such eyes as these are generally found in connection with the sanguine, or, as it is sometimes called, choleric temperament; that is, in those persons who have been born under the double influence of Jupiter and Mars; but, when we see these red tints in the eyes, it would be a sign that, of the two planets presiding over this temperament, Mars was dominant.

Clear grey-blue eyes, with a calm steadfastness in their glance, are indicative of cheerfulness of disposition, of a serene temper and a constant nature. These eyes are peculiar to the Northern nations; one meets with them among the Swedes, and also sometimes amongst the Scotch. The blue eyes we see among the rare blondes of the South—that is, in Italy and Spain—always have eyes in which there are some greenish tints; and such eyes, though often called light blue, have none of the qualities of serenity and constancy which belong to the light blue eyes of the North. Neither must the pleasant light blue eye, with the honest glance, be confounded with another sort of eye

of a pale blue, almost steel-coloured hue, which has a continually shifting sort of motion both of the eyelids and the pupils of the eyes. People with such eyes as these are to be avoided, as they are indicative of a deceitful and selfish nature. Very dark blue eyes, with something of the tint of the violet, show great power of affection and purity of mind, but not much intellectuality.

Grey eyes, of a somewhat greenish grey, with orange as well as blue in them, and which are of ever-varying tints, like the sea, are those which denote most intellectuality. They are especially indicative of the impulsive, impressionable temperament—a mixture of the sanguine and the bilious—which produces the poetic and artistic natures. The line—

"The poet's eye, in a fine phrenzy rolling,"

does not suggest a blue, or even a black, so much as the changeful, ever-varying tinted, grey eye; and it is a fact that in England (where there are more varieties of tints in eyes than in any other country) the poets have almost always grey eyes. A biographer of Byron speaks of his "beautiful, changeful grey eyes, which deepened in colour when he was under the influence of tenderness and passion, and which glowed with a red light when he was angry." Shakespeare also had, we are told, grey eyes, and so had Sir Walter Scott; whilst Coleridge had eyes of a greenish grey. Among the artists, too, eyes of this colour abound.

Black eyes, or what are considered such, are indicative of passionate ardour in love. Brown eyes, when not of the yellowish tint, but pure russet brown, show an affectionate disposition; the darker the brown—that is, the more they verge on to that deepest tint of brown which is seen in eyes we are in the habit of calling black—the more ardent and passionate is the power of affection. The brown eyes which do not appear black—that is, which are not dark enough to appear so—are the eyes of sweet, gentle, and unselfish natures, without the inconstancy of the light brown or *yellow* eyes—"golden eyes," as they were called by a lady novelist—and which are very little more to be

trusted than the green eyes already spoken of. The maiden in Longfellow's *Hyperion*, of whom he says,

"She has two eyes so soft and brown,
She looketh up, she looketh down;
Beware, beware, she is fooling thee,"

must have had these *light* brown eyes.

Eyes which show no lines when in sorrow or laughter denote a passionless and unimpressionable nature. Eyes of a long almond shape, with thick-skinned eyelids which appear to cover half the pupil, are indicative of genius; if in conjunction the forehead is that which shows idealism, and has one deep perpendicular line between the eyebrows, which is indicative of originality of mind and which is generally to be seen in the forehead of distinguished writers and artists. It is very remarkable in all the portraits of Michael Angelo. The almond-shaped eye, however, even without this peculiar form of forehead, always means a susceptible, impressionable nature. Eyes which are large, open and very transparent and which sparkle with a rapid motion under well-defined eyelids, denote elegance in tastes, a somewhat susceptible temper and great interest in the opposite sex.

Eyes with weakly-marked eyebrows above them and with thinly-growing eyelashes which are completely without any upward curve, denote a feeble constitution and a melancholy disposition. These eyelashes are often seen in people who combine the lymphatic and melancholic temperaments—that is, in persons born under the combined influence of the two melancholy planets, Saturn and the Moon. The eyes of these people are either of a pale, colourless sort of blue, or of a dull black without any sparkle in them.

Want of eyelash, like want of eyebrows, shows a general want of force, both of body and intellect.

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Strong, dark and short eyelashes show force of character and a strong and obstinate will.

Eyes with sharply-defined angles, sinking at the corners, show subtlety of mind; the sharper the angle and the more it sinks, the greater the delicacy of perception it denotes; but when very much developed it shows also craftiness amounting to deceit. Well-opened eyes with smooth eyelids and a steady and somewhat fixed glance denote sincerity. Lines running along the eyelid from side to side and passing out upon the temples denote habitual laughter—a cheerful temperament, or, at any rate, one in which the sense of humour is strong.

We sometimes see (but it is rare) persons whose eyes are of different colours. For instance, one eye will be of a bluish-grey, whilst the other will be so flecked with orange or tawny yellow spots as to appear what might be called a brown eye. This peculiarity of having eyes of different colours is sometimes to be seen in dogs, and very often in cats of the Persian breed, or white cats, but it is very rare in human beings. An old Italian writer says that people having eyes of different colours are likely to become mad. Having, during the whole course of my life, only known two persons having this peculiarity, I do not feel qualified to pass an opinion as regards this indication. One of these persons certainly was mad on several points; and, when it is added that the other is the writer of this book, many of its readers may be inclined to think that the mediæval physiognomist's theory might very possibly be correct.

CHAPTER XXIX.

THE NOSE

We often see fine eyes in an otherwise ugly face, but rarely is a thoroughly beautiful nose found in a face which could be called ugly, for the nose is the keynote of the face, and in it lies the chief characteristic of the countenance. Beautiful eyes and beautiful

lips have, it is true, more charm—it is the expression of the eyes and lips of those we love which we most remember in absence—but it is the nose which, more than any other feature, most affects the general character of the face. This will be seen if we try the experiment of drawing the head and face of any beautiful statue—say the Venus of Milo, for instance—and, while giving it all its fair proportions of brow and cheek and chin, we substitute a small turn-up nose, or, worse still, a flat or snub nose, for the noble yet softly gracious line of the nose in this most perfect head and how much we should lower the noble type of beauty this Venus presents! Of course no one in real life could be unattractive with such a brow and beautifully shaped eyes, to say nothing of the perfect lips and softly rounded lines of the chin; but the nobility of the face would be entirely lost by this alteration of the lines of the nose; whilst we might alter the beautiful lines of the eyes, narrow the brow, and even take from the softly voluptuous contour of lips and chin, yet by leaving untouched the perfect form of the nose we should still retain the dignity of expression which is so characteristic of this statue.

A nose to be perfect should equal the length of the forehead; it may, when the forehead is exceptionally low, be even longer than the forehead (and in most of the beautiful antique statues it is so), but on no account should it be shorter than the brow. Viewed in front, the nose should be somewhat broader at its root—that is, where it starts from the brow—than below. The end of it should be neither hard nor fleshy, but it should be well defined, though neither very pointed nor very broad, for all extremes of forms in any of the features are bad. Viewed in profile, the distance from the line of the wing of the nose to its tip should only be one-third of the length of the nose. Thus, those noses which stand very much out from the face as they near the end of the nose, whilst they are low on the bridge and between the eyes, are out of proportion. Those having such noses are vivacious, but wanting in dignity and force of character. They are impressionable, inquisitive and inconstant.

The nostrils (from the different forms of which many indications are given) should be pointed above and rounded below. The sides of the nose at its root between the eyes should close well with the line of the eyebone (as one sees them invariably do in the antique statues), and should be at least half an inch in width. Perhaps a better rule of proportion—as regards the whole face—is that the width of the nose between the eyes should be exactly the length of the eye.

Noses which are arched from their starting-point between the eyes show capability of command, energy and force of character. It will be remembered that the Duke of Wellington—the Iron Duke—had this sort of nose. Of course, this form in excess (as it certainly was in his case), without the characteristics of self-control and other good points in the face, would not have the same indication. A very prominent nose, like the beak of a parrot, with a narrow brow and retreating chin, would give stupid obstinacy; but, in an otherwise good physiognomy, a prominent nose gives force, command and productive energy.

It cannot, however, be denied that one *sometimes* comes upon noses which are rather small in proportion to the rest of the face and which are so devoid of arch as to be almost concave in their line when seen in profile, in persons of fairly good understanding; but such noses belong rather to those who appreciate, than to those who produce, works of literature and art. The people having these noses, provided the brows show some intellectuality, will be found to enjoy the beautiful influences of works of the imagination, but they themselves possess little or no creative power.

Straight noses give indications between these two extremes; they may belong to persons of the creative, or simply appreciative, order of mind. The form of the head and brow and the line of the eyebrows would determine to which class they especially belong. Arched noses with broad backs denote force of character. Swift and Napoleon Bonaparte had noses of this type. This sort of nose, with an arch starting from the root,

is seen in almost all the busts of the Roman emperors; it is, in fact, frequently called the "Roman nose," and is very typical of the race which was for so many ages dominant in Europe; whilst the beautiful straight nose (which we are accustomed to call Grecian, because it is seen in almost all the antique statues) is quite as indicative of the perception of beauty in art and literature and of the subtlety of mind which distinguished the Greeks. The creative force in the antique straight nose is given by its *proportion* to the rest of the face, for it is always larger in proportion to the brow, cheeks and jaws than the strongly-arched broad-bridged nose which we call Roman, and thus it is indicative of quite as much productive force as the arched Roman nose, with infinitely more delicacy of perception; a small straight nose shorter than the forehead and set in a large round face, shows timidity and foolishness and is the nose of an unintelligent person.

High noses that are not broad-backed are often seen in the faces of men of letters, but a high *thin*-backed nose, which seems to start up in a sharp ridge when seen in profile, is more indicative of penetration and acuteness than force of mind. These noses have generally fine, sharp tips, with a downward curve; this is an indication of wit. Voltaire and Sterne had such noses; they are generally seen in combination with thin and flexible lips and a somewhat pointed chin. A nose which is bent downwards is also indicative of sadness of disposition, for it is one of the signatures of the melancholy planet Saturn; but wit may exist (in fact generally does so) with a somewhat sad temperament. Voltaire's wit is almost always cynical, and cynicism grows out of a want of hope, a want of belief in one's fellow-creatures; whilst in Sterne (the writer of the inimitable though now little-read work, *Tristram Shandy*) there is always, even in his brightest sallies, an under-current of pathetic sadness. People with this sort of nose are sarcastic, somewhat hypochondriacal and very often reserved and morose. If, with this form of nose, the nostrils are narrow and almost closed and the wings of the nose pinched, the indications are still more those given by the melancholy planet Saturn; the more elastic and freely moving the nostril with this form of nose, the more bright and the less

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sardonic the wit. A person with a broad Roman nose, having this violent downward curve over the mouth, is one to be avoided, for this combination denotes a secretly voluptuous temperament—a man or woman of strong passions hidden beneath a cold and reserved manner. Broad-backed fleshy noses, round and full at the tips, with intellectually good brows, show a genial temperament and a sense of humour. Without the good indications of the brow they would only show love of good cheer and a certain good-humoured carelessness.

Snub-noses—that is, noses short in proportion to the brow and with round fleshy tips—are indicative of commonplace, somewhat coarse natures, especially if the nostrils are round and the bridge of the nose very low between the eyes.

What is called a turned-up nose shows vivacity of temperament, jealousy, talkativeness, impudence (growing out of a certain amount of self-esteem) and petulance.

There is a sort of delicately turned-up nose which we often see in pretty women, and which, though it shows wilfulness and coquetry—things not uncommon in pretty women, since the song tells us—

"For oh! these charming women,
They all have wills of their own"—

is significant of delicate perceptions and a certain intuitive cleverness which is thoroughly feminine and, therefore, very attractive to men. These noses—which are especially the noses of charming women—are well raised at the root; in fact, have all the delicacy of line of a straight nose, except that the extreme tip has an upward curve. It must have been of one of these delicate and thoroughly feminine noses that Tennyson must have been thinking when he describes one of his heroines as having a nose—

"Tip-tilted like a flower."

Zaid H. adwan

Flexible nostrils, which quiver under excitement, show an ardent, poetic, and sensitive temperament.

Very open and flexible nostrils show ardour in love and if seen in conjunction with large, full and slowly-moving eyes and a full under lip, indicate a voluptuous and passionate nature.

Closed nostrils show melancholy, timidity and absence of hopefulness—a person who habitually sees everybody and everything *en noir*.

Round nostrils show animal instincts and a somewhat low type of individuality; they are generally seen in snub-noses, which of themselves give the same indication.

Noses which have on both sides many wrinkles, which become visible on the slightest motion and never entirely disappear, even in a state of complete rest, show cunning and sarcasm.

When the line (which, after extreme youth, is always more or less seen from the nose to the mouth) is very strongly marked, and descends at a great distance from the corners of the mouth to the chin, it evidences an anxious and melancholic nature.

CHAPTER XXX.

THE MOUTH, TEETH, JAW AND CHIN

A mouth to be beautiful should be in harmony as regards proportion with the rest of the features of the face; that is, it should be neither remarkably large nor remarkably small. Neither the upper nor the lower lip should project beyond the other when the mouth is closed. The lips should shut easily over the teeth, and in doing so should fall into a flowing line of curves without compression. The more the lips are endowed with motion

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and the more richly they are coloured, the finer and more delicate are the human passions they indicate.

An excess of even good form is bad; thus if the full rich lines of a generous mouth are exaggerated, we have the indication of sensuality, whilst the finer susceptibilities shown by delicately moulded lips may, by a little excess towards thinness, give fastidiousness and even avarice.

The middle-sized mouth, which combines strength with warmth of feeling, whilst it steers clear of coarseness, is what gives the best indications. Such a mouth shows courage, generosity, and affection.

A mild, somewhat overhanging upper lip generally signifies goodness, or rather kindliness of disposition; but if very much overhung it shows weakness of purpose and an irresolute, vacillating character and, where the under lip is small as well as retreating and the chin also small, it is an indication of imbecility.

A mouth in which the lower lip projects shows prudence amounting to distrust and melancholy. We often see this form of mouth with the down-drooping nose; both are indications of the dominating influence of Saturn at the birth of the person possessing such a combination of features. If the under lip should be very full as well as projecting and droops in a flaccid manner without closing over the teeth when the lips are in repose, it is a sign of a sensual nature. Of course an intellectual brow and a firm and energetic form of nose would lessen the evil of such an indication, but there is always a tendency towards the grosser pleasures of the senses in a person with such a form of lips.

A mouth with lips habitually apart denotes eloquence, if the rest of the face gives intellectual indications; but if none of the signs of mental power are there, it would only signify a chattering person wanting in decision and promptness of action.

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A firmly closed mouth shows courage, fortitude and determination; even an habitually open mouth will be seen to close with a sort of forced compression when endurance is necessary. Everyone closes the mouth after saying, "I am resolved."

A somewhat long mouth, with an upward curve at the corners and with thin and very flexible lips, indicates wit. Voltaire had this sort of mouth.

Full, flexible lips, with a hollow in the centre of the lower lip, and with the corners turning upwards, show a joyous, hospitable and rather materialistic temperament, with good spirits and sense of humour.

A mouth with full lips, but in which one side of the lower lip is larger and fuller than the other, was said by the old writers to denote ardour in love and general sensuousness. It is one of the signatures of Venus.

A wart just above the upper lip shows a coarse and cruel nature; a mole in the same place, love of the opposite sex.

Of course, the shape and placing of the teeth are not without significance in the character given by the mouth. When the upper gum shows above the teeth directly the lips are open, it is a sign of a selfish and phlegmatic nature.

Short, small teeth are held by the old physiognomists to denote weakness and short life, whilst rather long teeth, if evenly set in the head, denote long life.

The more the teeth, in point of size, shape and arrangement, approach to those of the carnivorous animals, the more violent are the animal instincts in the person; whilst the more the human teeth in shape and position approach to those of the graminivorous animals, the more placid is the character.

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White, medium-sized and evenly-set teeth, which are seen as soon as the mouth is open, but which are never exposed—that is, which do not at any time show the gums—are a sign of good and honest natures.

Projecting teeth show rapacity; small, retreating teeth, such as are rarely seen unless in laughter, show weakness and want of physical and moral courage. The lower teeth projecting and closing over the upper range are indicative of a harsh nature.

In most faces the mouth or the nose is the more prominent. Where the nose is the dominant feature, energy, command and force of willpower, combined (unless the mouth and eyes show great kindness) with selfishness, show themselves in the character. Where the mouth, jaw and chin are more prominent, the appetites and passions are strong.

Broad jaws, with a broad forehead, mean both force of intellect and force of animal passion. Byron had this combination of brow and jaw; but the lips, which were full and flexible and with upward-curving corners, redeemed the sensuality given by the jaws, and the intellectual qualities shown by the form of the brow were in excess of the indications of voluptuousness given by the lower part of the face.

A person who has the jaw much broader than the brow and head has strong passions and a weak intellect—the very worst possible combination.

When the jaws are massive and yet the head and brow are more so, we have a powerful character, who can exert all his intellectual powers on one subject—one who has the very valuable faculty of concentration.

Where the jaws are much narrower than the head, we have a character where the sensual instincts are feeble, and where intellect is of a subtle and refined order. Wit is shown by this form of face, especially if the nose is delicately outlined, the tip pointed and somewhat drooping over the mouth.

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When the lips retreat on each side of the mouth and open into an oval form, it denotes a subtle intelligence, tact and refinement of nature.

A sharp indentation immediately above the chin, between it and the lower lip, shows good understanding.

A pointed chin is a sign of craftiness, wisdom, discretion and intuitive perception.

A soft, fat, double chin shows epicurism and love of sensual pleasures of all sorts; it also indicates an indolent temperament. We never see such chins in persons of an energetic, restless nature. Charles James Fox, who was excessively indolent, had this chin even in youth.

A flat chin shows avarice and a cold, hard nature; a small chin indicates weakness, want of will-power and cowardice.

A retreating chin is a sign of silliness and, if the brow is shallow, of imbecility.

Where the space between the nose and the red part of the lip is short and very sharply cut, it indicates refinement and delicacy of perception, but not much power—no *force* of intellect; where this space is unusually short, it denotes silliness and weakness of purpose. A rather long but not flat upper lip, especially where the serpentine line of the middle of the mouth is much defined and the middle of the lip droops to the lower lip and is very flexible, denotes an eloquent person. We see this form of upper lip in the bust of Demosthenes, the greatest of Grecian orators; in Cicero, whose eloquence was unsurpassed in his age; in Fox, whose powers of oratory were great; in the demagogue Wilkes, in Edmund Burke, in Lord Palmerston and numerous other orators.

A very long upper lip, which is flat and which belongs to a straight and formless or too thick-lipped mouth, is a sign of a low and vicious type of character. Almost all the faces of great criminals have this defect, combined with massive jaws and high cheek-bones,

which last defect is, both Lavater and Perneti (a great French writer on the subject of physiognomy) tell us, a sign of rapacity and egotism.

A round chin, with a dimple in it, denotes kindliness and benevolence, a tender and unselfish nature. In a very massive double chin the dimple increases the quality of love of sensual pleasures. A square and massive chin shows strong perseverance and determined will.

An old Italian writer says that "women with brown, hairy moles on the chin, especially if these excrescences are on the under part of the chin, are industrious, active and are good housewives"; they are also, he says, "very sanguine and given to love follies. They talk much and whilst they are easily excited to return a love which is offered them, they are not so readily prevailed upon to become indifferent. For this reason," he goes on, evidently speaking feelingly and probably therefore with personal experience of the matter, "they should be treated with circumspect, calm friendship and kept at a distance by a mildly cold dignity of demeanour." He gives no directions as to how this effective "demeanour" is to be arrived at, but at once passes on to another remark on the subject of moles, and tells us that "a mole upon the upper lip, especially if it is bristly, will be found in no person who is not defective in something essential." This is rather a wide way of putting the matter. Are people with this blemish morally, mentally, or physically deficient? Wanting in kissableness such a mouth might be and this, perhaps, where lips are concerned, *is* "something essential."

CHAPTER XXXI.

THE HAIR AND THE EARS

Black hair which is perfectly without any wave or curl and which lies in lank, lifeless masses, shows a melancholic disposition; a black beard which grows sparsely gives the same indication.

Black hair which is wavy or curling and very thick, shows force of affection and a certain ardour in love matters; so also does a thick and crisp-textured black beard and moustache.

The lank, thin and uncurling black hair is one of the signatures of Saturn alone; the crisp, curling and thickly-growing black hair is the combination of Venus and Saturn. The united influence of these two planets on a life gives force of character, for the warmth and impulse given by Venus is tempered by the distrust of Saturn into prudence; thus people with the crisp dark hair get the ardour, combined with prudence, which produces success in life.

Chestnut hair of a soft and silky texture and not very thick, gives romance of character. This is not the sort of hair which is ever seen on very commonplace, realistic persons. Men having this soft chestnut-coloured hair are somewhat effeminate in their tastes and are wanting in energy and decision. Both men and women having it are incapable of strong affection: they are attracted by the opposite sex, but they are more given to having a series of small interests than one strong love. If this hair is found in combination with the golden coloured eyes it is indicative of coquetry in the nature; if with pale blue-grey eyes we have languor and caprice—a sentimental and inconsistent person.

Bright golden hair of a rich deep colour and of a crisp and waving texture growing thickly on the head and somewhat low on the brow, shows an ardent, poetic and artistic temperament. It is the signature of the Sun. Such people are generally fond of music, painting, or poetry. Both men and women having this sort of hair are intuitive in their judgments; they do not reason about things, they feel them; they are a little quick of

temper, that is, easily ruffled, but they are quickly appeased; they are gay and interest themselves in art, even if they are not artists themselves.

Persons with red hair are ardent and vivacious, especially if, with it, they have hazel eyes, in which case they have a bright and quick intelligence, for reddish hair and bright brown eyes are the signature of Mercury. They have a great deal of natural facility for study and good memories, but they are selfish and rather cruel.

Red hair, with blue eyes, shows the same warmth of character, but not so much intelligence, and if, with blue eyes and red hair, the eyebrows and eyelashes are white—as is often the case—it is an indication of a weak and capricious nature.

People with red-brown hair, which is very thick and redder over the ears and at the temples and on the beard than on the head, are courageous and hot-tempered. This coloured hair is the signature of the fiery planet Mars, and (unless the other indications in the face are widely different) shows activity and energy in all things. It augments the indications of force and power given by other features and in art gives sense of colour in painters—force of language and eloquence in poets—and power in musical composition.

Hair of that colourless, fair colour which French writers call *blond cendré*, or ash-coloured, denotes persons of an indolent and dreamy temperament. It is the indication given by the dominant influence of the Moon at birth. Persons with this sort of hair, in combination with large blue-grey eyes, with fair, long, but straight eyelashes and very slightly-defined eyebrows of the same blonde colour and white, soft skin, are capricious, languid, imaginative and somewhat melancholic. The imaginative and excessively indolent Théophile Gautier, the French novelist, was of this type in combination with Venus, giving a sensuousness amounting to sensuality.

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Women having this sort of colouring of skin and hair are romantic and devoted in a resigned, but not active spirit—that is, they are more generous in words than deeds, for they are incapable of exertion and still less of perseverance.

Persons with soft, wavy brown hair are affectionate, gentle and loving. Their first instincts are always good and kind. They like society and are gracious in manners and, though they are not quite as indolent as those having the soft ash-coloured hair—indicative of the Moon's influence—they are still lovers of repose and elegant comfort.

People with this soft brown hair (which is one of the signatures of the planet Venus) are very open to the impressions of beauty and they abhor noise, discords and quarrels; men with this sort of hair, like those with *pale* golden hair, are somewhat effeminate and are easily moved to tears.

Large, fleshy ears (especially those which have the lobes of the ears red) show coarseness of nature and sensuality.

If the ears stand forward so as to show their entire form when the face is seen from the front, it denotes rapacity and cruelty.

Long-shaped but small ears indicate refinement; a very small ear, close to the head, shows delicacy of perception, refinement, but also timidity.

The ears should be so placed as not to be higher than the eyebrow, or lower than the tip of the nose; if set in too sloping a direction they show timidity; if too upright, animal instincts, courage, amounting to cruelty, especially if they obtrude from the head.

A thin ear shows delicacy and poetry of feeling; a thick ear the reverse.

Middle-sized ears, rather close to the head, are the signature of Jupiter; large ears of Saturn; delicate, long-shaped ears of the Sun and also of Mercury, only those bearing the signature of Mercury are more coloured, whilst those of the Sun are pale.

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Very upright ears, standing forward, are the signature of Mars; small, round ears, delicately tinted pink and close to the head, show the influence of Venus; whilst middle-sized round ears, of a very pale colour, are indicative of persons born under the influence of the Moon.

CHAPTER XXXII.

THE SIGNATURES OF THE PLANETS ON THE FACE

Those born under Jupiter have fresh complexions, and large blue or grey eyes, with thick and well-formed eyelids; and their eyelashes are long; their hair—which is chestnut, or, if tending towards black, is a brown, not *blue*, black—and is crisp or curly. They generally have well-marked and somewhat arched eyebrows, and their noses straight, with a slight rise on them, and somewhat fleshy; their mouths are large, but with generous, curved and full lips, the upper lip projecting over the lower one; their teeth are large, and the two in front are generally longer than the rest; their cheeks are fleshy and firm; the cheek-bones are well defined, without being prominent; the chin is large, with a dimple in the centre of it; their ears are of medium size and lie somewhat close to the head. The men born under Jupiter have thick curly brown beards, but they get bald early in life.

Those born under the dominant influence of the melancholy planet Saturn have no colour in their cheeks and their skin is dark and of a yellow or leaden tint. It is seldom that anyone is born under the *sole* influence of one planet; the ugliness of the Saturnian type is much mitigated by the influence of Jupiter, and the union of Venus and Saturn often produces positive beauty of a serious and melancholic sort. Many of the strikingly beautiful Spanish faces show the combined influence of these two planets.

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Those born under the dominant influence of the Sun have regular features and a soft skin of a yellowish tint, but with colour in the cheeks and lips. Their hair is of a *red*-gold tint; and their eyebrows are well defined, but not dark. Their eyes are of a golden brown or greenish grey, and are brilliant and well shaped; the eyelashes and eyebrows are a little darker than the hair, but not dark, and are traced in a long sweeping line extending to the temples. Their cheeks are well covered, without being plump; their jaws are a long oval and neither the cheek-bones nor the jaws are at all prominent. Their teeth are even, but of rather yellowish white; their mouths are neither large nor small, but well formed, with the lips meeting evenly, that is, neither the upper nor the lower lip projecting. Their ears are medium-sized, rather long in shape, lying close to the head and the lobes of them are fleshy and slightly coloured of a pinkish hue. The chin is rather prominent, round and well shaped, like those of the antique statues, but not fleshy. Those born under the influence of the Sun have frequently weak sight, especially if their birth has taken place during an eclipse.

Those born under the influence of Mercury have long faces and delicate, mobile features. Their skin is fine, soft and honey-coloured, but changes in tint with every passing emotion, for those born under Mercury are of a nervous, vividly intuitive and highly excitable temperament. Their hair is of a reddish, not golden, brown (what is called auburn), very fine and supple. Their foreheads are high and prominent and their eyebrows, which are long and delicately traced, lie very low over the eyes and are very mobile, moving up and down with every emotion. The eyes of those born under this planet are somewhat sunken, of a hazel or dark grey colour; they move quickly and have a restless expression; the white of the eye is (like that of those born under Saturn) of a yellowish tint and the lids of the eyes are thin and do not droop at all over the eyes. Their noses are straight and long, with delicate nostrils; the tip of the nose is round rather than pointed and frequently has a small cleft or dimple, which is, however, only faintly perceptible in certain lights, at the extreme tip. They have delicate mouths which

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droop a little at the corners and the lips are thin, mobile and often a little apart; the upper lip is thicker and more projecting than the lower lip; the teeth are small and even. The chin is long, pointed and a little projecting at the lip. The head is oval in shape and full at the temples.

Those born under the planet Mars have short, square-shaped, but small heads, with high foreheads on which the hair grows far back, leaving the forehead much exposed. Their faces are round, sometimes square at the lower part and their skin is hard and dry and of a red colour, especially about the ears, which are long-shaped, set straight rather high on the head and slightly projecting from it. Their eyebrows are short, sometimes stopping midway over the eyes, very bushy and lying close to the eyes. Between the eyebrows are several short upright wrinkles. The hair is of a red or sandy colour, coarse and very curly. The beards of men born under Mars are thick, short and of the same fiery colour as the hair. Their eyes are grey or red-brown and are large, round, very wide open and have a fierce and fixed glance; the white of the eye in those born under this fiery planet is often bloodshot. Their mouths are large, but the upper lip is thin and compressed; the lower lip is somewhat thicker than the upper lip. Their noses are short and aquiline, with dilated nostrils. Their chins are projecting and somewhat massive, for the jaw is strongly developed; the cheeks are somewhat hollow, and the cheek-bones very marked.

Those born under the influence of the Moon have round-shaped heads, broad at the temples (showing ideality—the Moon gives imagination). The forehead is full over the eyebrows, but retreats at the top; it is broad and low. The complexion is pale, almost colourless and the skin is soft. Their hair is fine, soft, of a colourless fairness, no golden tint in it and it is never very thick. The faces of those born under the dominant influence of the Moon are large and round; the nose is (in proportion to the face) small and short and its tip is round rather than pointed. Their eyes are of the same colour as the hair, very lightly marked, but joining over the nose. Their mouths are small; but their lips,

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which are of a pale colour, are full and pouting and are rarely quite closed. Their teeth are large and often irregular. Their chins are round, fleshy and retreating. Their ears are also round, medium size, pale coloured, set in a very sloping direction and lying close to the head. If born during an eclipse of the Moon, those born under this influence are sometimes blind.

People born under the influence of Venus have a great resemblance to those born under Jupiter, only their beauty is more feminine. They have the white and delicately-tinted skin of the Jupiterians, but it is still softer, finer and more transparent. They have round faces, the cheek-bones and the jaw-bones are not at all apparent; their cheeks are softly rounded and generally ornamented with dimples; their foreheads are a delicate oval, rather low and have delicate azure veins at the temples. The eyebrows of persons born under the influence of this beautiful planet are dark and beautifully marked in long sweeping but very delicate lines, but not meeting over the nose. Their hair is long, thick, soft, undulating and of a light brown colour. Their noses, which are broad at the root between the eyes, are straight and delicate, not at all pointed, but rather rounded at the tip;[20] the nostrils are round, but dilated and very flexible. Their eyes are large, clear, humid and somewhat projecting; the pupils are large in proportion to the white of the eye, which is limpid and of a clear, transparent, bluish white; their eyelids are well formed and blue veined. Their mouths are small and of a beautiful red colour; the lips are full, especially the lower one, the right side of which is slightly larger than the left. This is a particular Signature of Venus, as is also a small dimple near the corner of the mouth. The teeth are white, small, evenly set in coral-tinted gums and the chin is soft and round and has, like the chin of Jupiterians, a dimple in it.

Although the signs just described are those given by each planet, as it rarely happens that anyone is born under the influence of one planet only, but generally of two or more, it is rarely that we see a face which gives the pure type of any one planet without

admixture. It is for the physiognomist to examine and ascertain which is the dominant planet.

The union of Saturn and Jupiter gives a pale skin without freshness, chestnut hair and eyes and a rather dark skin, the face a round oval and dark grey eyes.

The union of Venus with the Sun gives brilliant beauty, a beautiful complexion, hair of a golden brown or rich chestnut, full, bright brown eyes with long eyelashes, a delicately-formed nose and a beautiful mouth. People born under this junction have much charm of manner, but they are not very constant; for, although they have much tenderness, they are of the ardent artistic nature, which, from its very susceptibility, cannot be expected to be as constant as those who are less impressionable; they are people of quick rather than deep feelings; they love readily, but as readily forget.

"Women born under the double influence of Venus and the Sun," says an old Italian writer on the subject, are "loving, lovely and beloved."

CHAPTER XXXIII.

CONCERNING THE MOLES ON THE FACE AND THEIR REFERENCE TO THOSE ON THE BODY

All moles are the result of the influences of the planets, or of the sign of the zodiac rising at birth. The moles which are given by Saturn are black; those by Jupiter are of a purple-brown colour; those by the Sun, yellow; by Venus, light brown; Mercury, honey-coloured; by the Moon, of a bluish white.

A mole on the right side of the forehead, just beneath or on the line of Saturn (see plate) indicates another on the right side of the breast. This mole shows to a man, if yellow, that he will have good fortune in sowing, tilling the earth, or building; if red, he will

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have luck all through his life, by his courage and force of character; if black, his condition will be changeable; if the mole is purple, he will be advanced to be the head of his family. In a woman a mole in this position shows fortune by inheritance or legacies; but if black in colour she will not live long.

A mole on the left side of the forehead on the Line of Saturn indicates another on the left side of the back and shows to a man imprisonment and disaster; if honey-coloured, his trouble comes from women; if red, from quarrels with enemies; if black, he will be unfortunate all his life. To a woman it foretells that she will live out of her own country and if black she will be a widow.

A mole in the middle of the forehead on the Line of Saturn shows another in the middle of the stomach and foretells to a man, if it should be black, that he will suffer much ill-fortune for the sake of women; if red, he will get some pleasure out of his troubles with them; and if yellow, he will rejoice through women; if of a pale bluish colour and raised, he will be much beloved of women. To a woman, of whatever colour it may appear, it indicates that she is of a very luxurious nature and will suffer from her own folly as regards men.

A mole on the right side of the forehead on the Line of Jupiter shows another on the right side over the liver and indicates, to a man, good fortune in marriage, long life and large possessions; but if black, he will not be quite so lucky as regards marriage. To a woman it shows, whatever its colour, good fortune in all that concerns her.

A mole on the left side of the forehead on the Line of Jupiter shows another on the left side of the stomach and indicates, to a man, love of material enjoyments, especially if it be of a purple colour; if honey-coloured, he is not so sensual. To a woman such a mole shows her to be imprudent and quite regardless of her own honour.

A mole in the middle of the Line of Jupiter shows another in the middle of the breast and indicates that a man is of a harsh nature; if red, he is furious in temper; if black, he

is singularly unfortunate in all his undertakings; but if raised and of a bluish colour, he is less unlucky. To a woman it indicates that she is foolish, prattling and idle.

A mole on the right side of the Line of Mars shows another on the right arm and indicates, if red, military distinction; if honey-coloured, good fortune with horses and other cattle; if black, danger from four-footed beasts; if much raised and somewhat red, it shows good fortune in all things relating to fire. To a woman this mole shows a rich husband, full of kindness and complacency.

A mole on the left side of the Line of Mars indicates another on the left arm, and shows a man to be of a quarrelsome nature; if black, he is treacherous and loses much by four-footed beasts and by horse-racing; if purple or yellow, he is involved in quarrels about women. Such a mole, whatever its colour, shows a woman to be very unfortunate in her love affairs, and likely to be betrayed by her female friends.

A mole in the middle of the Line of Mars indicates another on the left side of the belly; if red, the man is likely to be guilty of manslaughter and if any other colour he is sensual. To a woman this mole shows vanity and, if black, she is likely to be the cause of the death of some friend, but more by mischance than by design.

A mole on the right side of the forehead on the Line of the Sun indicates another on the right breast and intimates, to a man, of whatever colour but black, riches and honours; if black, his good fortune will not be so great and will come, not from his own merits, but from the exertions of friends. To a woman it shows an affluence of the goods of fortune; but if black she will have to be very subservient to her husband.

A mole near the right ear shows another on the right side of the belly, not low down and signifies, to a man, a blow on the head, some accident to that ear, whereby he may lose his hearing; if black, these evils are the more to be apprehended. To a woman it shows the loss of those things she most values.

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A mole on the left ear shows another on the left side, low down on the belly. This mole indicates to a man persecution from enemies. If it be of a red colour, that he will go near to committing murder by reason of women; if black, or even honey-coloured, it is still of evil indication and shows quarrels and violent death. To a woman, let it be of whatsoever colour, it shows that she will be the cause of death to someone; let her, therefore, shun to meddle with poison.

A mole on the right cheek shows another on the right hip and indicates, to a man, that he will have great charm of manner towards women, and be much beloved by them; this, whatever its colour. To a woman also it shows happy marriage and that she will be vehemently beloved.

A mole on the left cheek shows another on the left hip and indicates, to a man, a wandering existence and short life; if black, he dies by violence. To a woman it threatens sharp and hard fortune, especially in love matters.

A mole on the right side or corner of the mouth shows another at the right side of the lower part of the spine and shows, to a man, that he shall much increase his wealth by reason of his own sagacity; but if honey-coloured, his good fortune will come by women. To a woman such a mole shows she will abound in wealth and be vehemently beloved; if black in colour, with all these advantages, she will yet suffer from the scandal of envious women friends.

A mole on the left side of the mouth indicates another on the left side of the base of the spine and shows, to a man, that he will be entangled with a woman he cannot marry, and have illegitimate children. To a woman it shows a likelihood of the same disgrace.

A mole in the middle of the upper lip shows another on the lowest part of the body and indicates, to a man, that he will be miserable from various perils, but above all from women. To a woman this mole shows sickness and weakness from internal diseases.

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A mole beneath the middle of the under lip shows another on the knee and indicates, to a man, that he will undertake long and perilous journeys, by reason of which he shall see many strange countries; if honey-coloured, he will gain wealth from strangers and marry a rich, foreign wife. Such a mole shows a woman to be thoughtless and likely to marry a foreigner and live much out of her own country.

A mole upon the middle of the chin shows another upon the right foot and indicates, to a man, that he shall have good fortune through women. To a woman happy marriage, but worry for her children.

A mole on the right side of the chin shows another on the right haunch and indicates, to the man, that he will be of great intellectual capacity; if black, he will be a searcher in occult matters. In a woman it shows good fortune, happy marriage and long life, whatsoever may be its colour.

A mole on the left side of the chin shows another on the left haunch and indicates, to a man, inconstant fortune, much worry of mind and bodily discomfort. In a woman it shows ill-health and, if of a pale bluish colour, danger by water.

CHAPTER XXXIV.

CONCERNING THE MOLES WHICH HAVE NO CORRESPONDING MOLES ON THE FACE

A mole on the right side of the throat shows to a man great wit but short life, whatever may be its colour. To a woman it indicates a reasonably happy life, but danger and pain from childbirth.

A mole on the left side of the throat threatens a man with dangerous falls from horses or from high places. To a woman the same and, should the mole be of a pale colour, danger by water.

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A mole at the nape of the neck indicates to either man or woman great danger of untimely death by water.

A mole in the midst of the throat—that is, on the gullet—shows to a man much danger of death by strangulation or hanging. To a woman peril in sickness and, if the mole should be black in colour, she dies.

A mole immediately under the right breast shows to a man that he will be lucky in agriculture. To a woman that she shall receive inheritance from the dead; if black, her father is killed by accident.

A mole under the left breast shows a man to be of a malignant nature and furious of temper, but strong in love. To a woman it indicates great constancy and suffering by reason of that constancy.

A mole on the knee, whether left or right, predicts, to either man or woman, long and various journeys. Such persons will marry entirely for their own fancy, probably foreigners, and will be very fortunate in their marriages.

A mole on the calf of the right leg shows to a man that by his own ingenuity and learning he shall attain a high position; if black, he will receive some sorrow from women; but if the mole should appear *raised* he marries a lovely person—has only one wife and lives happily. To a woman it shows a fortunate, good and rich husband and that she will have many children and live long.

A mole on the lowest part of the body shows to a man that he is of a very luxurious nature and that he shall be enriched by marriage. A woman having this mole is rather sensuous, but—on the whole—faithful to her husband.

A mole on the right shoulder shows a man to be fortunate in his undertakings; if red, he has a large fortune with his wife. To a woman it indicates a marriage above her expectations; but if black, she buries her first husband and marries again.

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A mole on the right foot shows to a man that he will be clever in acquiring foreign languages and that he will be a great student of occult matters. To a woman it promises a fortunate and happy, long life; if black, this good fortune is somewhat chequered with troubles.

A mole on the left foot denotes a man to be rash and of an evil and vagabond disposition. To a woman it shows much care and trouble and, if black, danger in travelling.

If the second toe in a foot should stretch out much beyond the great toe, it shows, to either man or woman, riches and a happy and prosperous life.

A mole on the left shoulder predicts to a man much worry in money matters. To a woman it shows a life of continual anxiety and humiliation by reason of her own vanity. If black in colour, she suffers some serious disgrace from her own conduct.

A mole on the lower part of the neck on the right side near the shoulder shows a man to be very covetous. To a woman it indicates that she will be beloved of princes or great personages far above her in rank.

A mole on the neck near the left shoulder indicates to either man or woman disgrace from evil practices.

CHAPTER XXXV.

CONCERNING THE MARKS GIVEN AT BIRTH BY THE SIGNS OF THE ZODIAC

By a knowledge of the signature given by the signs of the zodiac, when rising at birth, we may sometimes ascertain the hour of nativity, or, at any rate, go near enough to it to be able to work out the horoscope after a fashion, supposing the exact date to be impossible of attainment.

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A person born when the first part of the sign Aries is rising will have a small raised mole amongst the hairs of the head; if the second part of the sign happened to be rising at the birth, the mark or mole would be raised in the form of a pea or wart and would be seen on the forehead; if the third part of the sign arose at birth, the mark would appear below the mouth, or towards the chin. Those persons having these marks of Aries on any of the parts described will generally be found to have the mark of Mars in the lowest part of the body, also in the form of a raised mole or wart.

When Taurus is rising at a birth, the native bears a mark in the front of the throat, sometimes in the form of a raspberry or red-coloured mole, which mark is always ill in its effects. Should the second part of the sign Taurus have been rising at the nativity, the person will have the mark at the side of the throat. If the third, the same mark will appear on the nape of the neck, but then it will be more raised than the two former moles.

Those born under Gemini have their marks in the arms. If the first part of the sign arose at birth, they bear its mark on the right arm, near the shoulder; if the second, on the same part of the left arm and if the third part of the sign arises at birth, the native bears the mark on the right arm, but below the elbow and generally near the wrist.

When the sign Cancer is in the ascendant, the mark is on the upper part of the right breast in the form of a flower or a hare's foot, of a whitish colour, and commonly having a hair or two springing from it. In the older days this mark was supposed to be an evidence of witchcraft in a woman and many poor creatures have lost their lives for this. Those born under the second part of the sign Cancer have the mark lower down on the breast and when the third part of Cancer is rising at a birth, the sign is nearly under the breast.

When Leo is in the ascendant at birth, the sign is on the left breast and, in the same manner, if the sign appears high up on the breast it indicates that the first part of the

sign was ascending; if near the middle, the second; and if on one side, towards the left armpit, the third part of the sign must have been ascending at birth.

In nativities under Virgo the mark is on the upper part of the stomach, that is, between the two breasts, when the first part of the sign ascends; those born when the second part is rising have the mark near the navel; and those when the third part is rising quite low down on the stomach. Those that are thus marked are very inconstant. The moles given by Virgo are flat, and of a reddish colour.

When Libra is in the ascendant, the marks are raised like warts, and are small, soft, and hairy; when the first part of the sign is rising the mark is near the loins; when the second, towards the centre of the stomach and the third part of the sign throws the mark to quite the lower part of the body.

Those born under Sagittarius have the mark of the sign in the thighs and these moles are raised like bulbs and are very big. When the first part of the sign is rising, the mark is on the right thigh; when the second part is rising, on the left thigh and those who have the third part of Sagittarius rising at their birth are so marked on the right haunch.

Those born under Capricornus have the marks on the knees, which marks are quite flat. When the first part is rising, the mark is on the right knee; when the second, on the left, and when the third, the mole is under the knee.

It will be remembered that the sign Aquarius governs the legs; therefore those who are born with this sign ascending have the mark of it (which is a long-shaped mole) on the right leg (this mark shows extreme inconstancy); when the sign Scorpio is rising at birth there is a dark mole on the belly showing ill fortune.

The sign Pisces, or the Fishes, governs the feet; therefore those who have this sign in their ascendant are marked on the feet. Those born under the first part have the marks (which are ordinary flat moles) on the right foot; those under the second, on the left;

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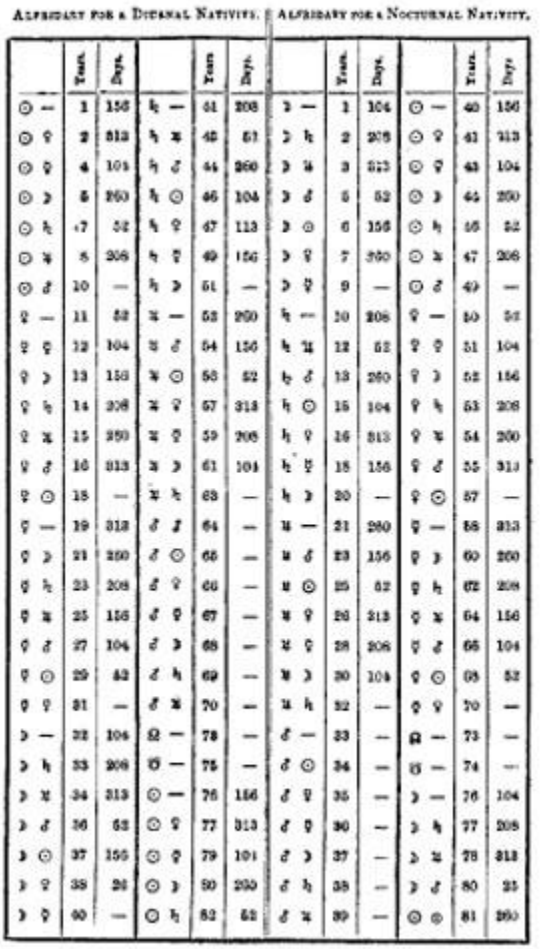
and those on the third, on the soles of the feet or on the heels. These last are called the Royal marks; they are large moles inclining to red, and those who are marked in those places are assured of honours and dignities.



ALFRIDARY FOR A DIURNAL NATIVITY. ALFRIDARY FOR A NOCTURNAL NATIVITY.

	Years	Days.		Years	Days.		Years	Days.		Years	Days.
☉ —	1	156	♄ —	61	208	☽ —	1	104	☉ —	40	156
☉ ♀	2	312	♄ ♅	62	61	☽ ♄	2	208	☉ ♀	41	312
☉ ☿	4	104	♄ ♂	64	260	☽ ♅	3	312	☉ ☿	43	104
☉ ☽	5	260	♄ ☉	66	104	☽ ♂	5	52	☉ ☽	44	260
☉ ♄	7	52	♄ ♀	67	112	☽ ☉	6	156	☉ ♄	46	52
☉ ♅	8	208	♄ ☿	69	156	☽ ♀	7	260	☉ ♅	47	208
☉ ♂	10	—	♄ ☽	61	—	☽ ☿	9	—	☉ ♂	49	—
♀ —	11	52	♅ —	53	260	♄ —	10	208	♀ —	50	52
♀ ♀	12	104	♅ ♂	54	156	♄ ♅	12	52	♀ ♀	51	104
♀ ☽	13	156	♅ ☉	56	52	♄ ♂	13	260	♀ ☽	52	156
♀ ♄	14	208	♅ ♀	57	312	♄ ☉	15	104	♀ ♄	53	208
♀ ♅	15	260	♅ ☿	59	208	♄ ♀	16	312	♀ ♅	54	260
♀ ♂	16	312	♅ ☽	61	104	♄ ☿	18	156	♀ ♂	55	312
♀ ☉	18	—	♅ ♄	63	—	♄ ☽	20	—	♀ ☉	57	—
☿ —	19	312	♂ ♂	64	—	♅ —	21	260	☿ —	58	312
☿ ☽	21	260	♂ ☉	66	—	♅ ♂	23	156	☿ ☽	60	260
☿ ♄	23	208	♂ ♀	68	—	♅ ☉	25	52	☿ ♄	62	208
☿ ♅	25	156	♂ ☿	67	—	♅ ♀	26	312	☿ ♅	64	156
☿ ♂	27	104	♂ ☽	68	—	♅ ☿	28	208	☿ ♂	65	104
☿ ☉	29	52	♂ ♄	69	—	♅ ☽	30	104	☿ ☉	68	52
☿ ☿	31	—	♂ ♅	70	—	♅ ♄	32	—	☿ ☿	70	—
☽ —	32	104	♌ —	78	—	♂ —	33	—	♌ —	73	—
☽ ♄	33	208	♍ —	75	—	♂ ☉	34	—	♍ —	74	—
☽ ♅	34	312	☉ —	76	156	♂ ☿	35	—	☽ —	76	104
☽ ♂	36	52	☉ ☿	77	312	♂ ☿	36	—	☽ ♄	77	208
☽ ☉	37	156	☉ ☿	79	104	♂ ☽	37	—	☽ ♅	78	312
☽ ☿	38	26	☉ ☽	80	260	♂ ♄	38	—	☽ ♂	80	52
☽ ☿	40	—	☉ ♄	82	52	♂ ♅	39	—	☉ ☉	81	260

ALFRIDARY FOR A DIURNAL NATIVITY.

ALFRIDARY FOR A NOCTURNAL NATIVITY.

To face Chapter XXXVI.

CHAPTER XXXVI.

CONCERNING ALFRIDARIES

This word is taken from the Greek and refers to the certain time or number of years of the several planets which, in those years, dispense their benevolence or malignity according to their natures.

It will be observed from the plate at the beginning of this chapter, that each of the planets has his Alfridary, one after the other—and in this table will be seen the number of years in which each planet more particularly governs the life.

In all diurnal nativities the Sun begins the first Alfridary, and has seven years of government; Venus succeeds, having seven years of Alfridary; then Mercury, who has seven years of government. After him the Moon rules the existence for seven years; then Saturn for the same number; Jupiter succeeds him for seven years; afterwards Mars dominates the existence for seven years; after which the Dragon's Head and Dragon's Tail influence the life for three years; and then the Sun has five more years of government, when the life probably ends.

Those that are born in the night have their first Alfridaric years from the Moon, which are seven, followed by those of Saturn, who has seven years; after him Mars is dominant for seven years; then the Sun for the same number of years; succeeded by Venus and Mercury, each only seven years.

The years of an Alfridary are eighty-two—namely, the Moon, seven; Saturn, seven; Jupiter, seven; Mars, seven; the Sun, seven; Venus, seven; Mercury, seven; the Dragon's Head, three; the Dragon's Tail, two. These two last have their Alfridaric years separate from the others, and they are those which exceed the seventy years of life, which are weak and feeble. For these signs are not (as we have seen) planets, but only symbols of a place in the zodiac representing the Moon's north and south nodes.

It will be noticed in these tables that, after the years of seventy-five, the Sun in a diurnal nativity, and the Moon in a nocturnal nativity, take up again their government, as at the

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beginning of the life. These tables are interesting, as shadowing forth the dates of the events of the subject's life.

Those born under the Sun marry early, whilst those in whose nativity the Moon is powerful, generally marry rather late than early. In either nativity, when Saturn comes up, sorrows by death, sickness and loss of money may be expected; whilst, when Mars is powerful, evils of a strong and sudden nature appear, such as accidents, sudden deaths, quarrels and contentions of a vexatious character.

Those born under the Moon have very often serious and passionate loves quite late in life; this is accounted for in some measure by the fact that Venus has seven years of government in a nocturnal nativity from the age of fifty to fifty-seven. The age of forty-four, in a diurnal nativity, would be likely to bring about some misfortune during that year of the native's life, *both the infortunes*, Saturn and Mars, being then powerful. The same thing occurs in a nocturnal nativity at the age of thirteen, from which age up to twenty there is not much good fortune; it will be remembered that the latter part of the life of a person born at night is generally much happier and altogether more fortunate than the earlier years of existence.

CHAPTER XXXVII.

CONCERNING THE MYSTICAL WHEEL OF PYTHAGORAS AND THE METHODS OF WORKING IT

This mystical figure is copied from a work in old French on Chiromancy and Geomancy, compiled by the Sieur de Peruchio, and published at Paris in 1657.

Arithmancy, or divination by numbers, on which the working of this figure depends, was much practised in various ways during the Middle Ages; and much confidence

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appears to have been placed in this wheel of Pythagoras, which resolves questions by a species of sortilegy by numbers, in which the result depends upon the unfettered agency of the mind and will, or the serious intent to know any difficult thing. The wheel is said by the old-world writers to be able "to resolve all questions on all matters upon the result of which the querent desires information, whether of the past, present, or future."

Concerning the method of working it, the Sieur de Peruchio gives the following explanations:—

The wheel, it will be perceived, is divided into four equal parts, the upper part of which contains the numbers which are *fortunate*, and the lower half those which are *unfortunate*. Around the wheel are seen the letters of the Alphabet, above which are placed certain corresponding numbers, which are required in the calculations.

The following table gives the numbers to be chosen by chance (as will be explained further on) in working the questions:—

1	11	22	28	29
6	2	12	23	30
15	7	3	13	24
19	16	8	4	14
25	20	17	9	5
27	26	21	18	10

The inquirer, whilst thinking *earnestly* upon the matter he wishes resolved by the wheel, must choose a number out of the above Table.

This is better done with the eyes closed, and the number pricked out with a pin, so that there may be no premeditation in the choice. To this number, thus chosen, the inquirer

must add the number answering to the first letter of his first name, which number is seen in the wheel itself where the numbers are above the letters of the alphabet. To this number must be added the number of the day of the week on which the question is asked and of the planet ruling that day. Then add all these numbers together and divide the sum by 30 as often as it can be done. Then look for that number which is the remainder in the inner circle of the wheel; observing in what part of the wheel it falls should there happen to be *no* remainder, then the number 30 must be looked for. If the question to be propounded should be whether anything about to be undertaken will succeed or not, should the number fall in the *upper* part of the wheel the matter will have a happy issue; but if, on the contrary, the number appears on the *lower* part of the wheel the thing in question will not be a success. In any question where time is concerned as, for instance, as regarding how long or how short shall be the matter in hand it must be borne in mind that the numbers in the right half of the wheel represent *long time*—that is, that the event about which the question is asked will be some time before it comes to pass; whilst those in the left half of the wheel signify *short* time—and so, whether for good or evil, shall the business quickly or slowly come to pass.

All questions are thus to be asked but *one*, and that is, whether a sick person shall recover or die; in which case, after proceeding to add the numbers of the Christian name, the day of the week and the planet, the number representing the Moon's age on the day the question is asked must also be added; for example, if a person whose name is Veronica—asks on a Wednesday, 20th day of the Moon, if a sick friend should live or die, and chooses from the Table the number of 23, the matter would be worked thus:—

Number chosen	23
Number answering to the letter V	9
Number answering to Wednesday	102
Number answering to the planet Mercury	114

Number of the age of the Moon	20
	268

This, divided by 30, leaves 28 remainder, which will be found to fall in the unfortunate part of the wheel, showing that her friend will *not* recover.

The following table of the mystical numbers representing the planets, and also those belonging to the days of the week which each planet governs, is of much importance in working the wheel:—

PLANETS.		DAYS OF THE WEEK.	
♄ Saturn	55	Saturday	45
♃ Jupiter	78	Thursday	31
♂ Mars	39	Tuesday	52
☉ Sun	34	Sunday	106
♀ Venus	45	Friday	68
☿ Mercury	114	Wednesday	102
☽ Moon	45	Monday	52

These several numbers attributed to the days of the week, as well as those of the planet ruling the day, are of very ancient origin and are, probably, as well as the wheel itself, a relic of former *traditional* foreknowledge by lots and numbers.

There are certain days, however, which are evil days, on which no question should be asked of the wheel of Pythagoras. These days are as follows:—

- Of January, the 3rd, 4th, 5th, 9th and 11th.
- Of February, the 7th, 13th, 17th and 19th.

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- Of March, the 13th, 15th and 16th.
- Of April, the 5th and 14th.
- Of May, the 8th and 14th.
- June has but one ill day, which is the 6th.
- July has two, the 16th and the 19th.
- August has also only two, the 8th and 16th.
- September has three, the 1st, 15th and 16th.
- October has only one ill day, which is the 16th.
- November has two, the 15th and 16th.
- December has three, the 6th, 7th and 11th.

This is a very old tradition, and in mediæval ages these days were universally shunned as "ruled by evil influences." In conclusion, those consulting the wheel of Pythagoras are advised not to ask more than one question on the same day and to refrain from all gibing, sporting, or jesting, and—above all—from all unbelief whilst making use of this mystical wheel in order to know the truth.

ENVOY.

Go—little book—and teach the present age something of the wisdom bequeathed us by the Past.

Footnotes

[1]

The ambient means the heavens when spoken of in a general manner.

[2]

Saturn, Mercury and the Moon.

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[3]

Aries is always opposite to Libra; Taurus to Scorpio; and so on of all the rest, as shown by the table given (p. 11).

[4]

The foregoing chapter explains this term.

[5]

The Chaldees averred that when Saturn was powerful in a nativity the person then born was "mystical and confederate in secrecy."

[6]

This animal has been probably assigned to him by reason of its sagacity and extreme fidelity--constancy in feeling being one of the attributes given by the planet Saturn when well-dignified.

[7]

Zadkiel's and Raphael's are both good; the following figure is worked after the Ephemeris of the latter.

[8]

The nebulous mass in the body of the Crab.

[9]

Hyleg is the word used for that body or point which is the giver of life.

[10]

This was the case at the birth of George the Third of England; at that of the Emperor Paul of Russia; Maria, Queen of Portugal; Charles the Second, King of Spain; and Murad the Fifth, Sultan of Turkey; and all these sovereigns, as is well known, became insane.

[11]

At Admiral Nelson's birth Mars was rising in the sign Scorpio.

[12]

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Probably vivisectionists.

[13]

These aspects can all be judged from the Ephemeris of the year of birth.

[14]

And these secondary directions being so much easier to calculate, students are advised to follow the ancient methods in this as in all else relating to this old-world study.

[15]

Translated from a Hebrew manuscript found near Cairo in 1836 at the time of the removal of the obelisk to France.

Adda-Nari, Nature--that is, the deity known under the name of Isis by the Egyptians.

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The date of this event would be determined by the place where the separation line crosses the Line of Fate.

If the Sun is one of the dominant planets, the Line of Heart broken under the Mount of the Sun shows serious physical affection of the heart; if this sign is on both hands it is fatal.

If the Head Line it placed very low, then the date where it crosses the Saturnian Line would be 30, and if the Heart Line is proportionately low the date where it crosses the Saturnian would be 45 years.

The noses of those born under Venus are frequently slightly upturned at the tip; they are never bent downwards over the lips.

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Online Distributed Proofreading Team at https://www.pgdp.net Revised by David Wilson *** START OF THE PROJECT GUTENBERG EBOOK MATHEMATICAL RECREATIONS *** First Edition, Feb. 1892. Reprinted, May, 1892. Second Edition, 1896. Reprinted, 1905. MATHEMATICAL RECREATIONS AND ESSAYS BY W.W. ROUSE BALL Fellow and Tutor of Trinity College, Cambridge. FOURTH EDITION London: MACMILLAN AND CO., Limited NEW YORK: THE MACMILLAN COMPANY 1905 [All rights reserved.] Produced by Joshua Hutchinson, David Starner, David Wilson and the Online Distributed Proofreading Team at https://www.pgdp.net Transcriber's notes Most of the open questions discussed by the author were settled during the twentieth century. The author's footnotes are labelled using printer's marks* ; footnotes showing where corrections to the text have been made are labelled numerically1 . Minor typographical corrections are documented in the LATEX source. This document is designed for two-sided printing. Consequently, the many hyperlinked cross-references are not visually distinguished. The document can be recompiled for more comfortable on-screen viewing: see comments in source LATEX code. 'Character set encoding' refers to the LATEX source. PREFACE TO THE FIRST EDITION. The following pages contain an account of certain mathematical recreations, problems, and speculations of past and present times. I hasten to add that the conclusions are of no practical use, and most of the results are not new. If therefore the reader proceeds further he is at least forewarned. At the same time I think I may assert that many of the diversions— particularly those in the latter half of the book—are interesting, not a few are associated with the names of distinguished mathematicians, while hitherto several of the memoirs quoted have not been easily accessible to English readers. The book is divided into two parts, but in both parts I have included questions which involve advanced mathematics. The first part consists of seven chapters, in which are included various problems and amusements of the kind usually called mathematical recreations. The questions discussed in the first of these chapters are connected with arithmetic; those in the second with geometry; and those in the third relate to mechanics. The fourth chapter contains an account of some miscellaneous problems which involve both number and situation; the fifth chapter contains a concise account of magic squares; and the sixth and seventh chapters deal with some unicursal iii iv PREFACE problems. Several of the questions mentioned in the first three chapters are of a somewhat trivial character, and had they been treated in any standard English work to which I could have referred the reader, I should have pointed them out. In the absence of such a work, I thought it best to insert them and trust to the judicious reader to omit them altogether or to skim them as he feels inclined. The second part consists of five chapters, which are mostly historical. They deal respectively with three classical problems in geometry— namely, the duplication of the cube, the trisection of an angle, and the quadrature of the circle—astrology, the

hypotheses as to the nature of space and mass, and a means of measuring time. I have inserted detailed references, as far as I know, as to the sources of the various questions and solutions given; also, wherever I have given only the result of a theorem, I have tried to indicate authorities where a proof may be found. In general, unless it is stated otherwise, I have taken the references direct from the original works; but, in spite of considerable time spent in verifying them, I dare not suppose that they are free from all errors or misprints. I shall be grateful for notices of additions or corrections which may occur to any of my readers. W.W. ROUSE BALL Trinity College, Cambridge. February, 1892. NOTE TO THE FOURTH EDITION. In this edition I have inserted in the earlier chapters descriptions of several additional Recreations involving elementary mathematics, and I have added in the second part chapters on the History of the Mathematical Tripos at Cambridge, Mersenne's Numbers, and Cryptography and Ciphers. It is with some hesitation that I include in the book the chapters on Astrology and Ciphers, for these subjects are only remotely connected with Mathematics, but to afford myself some latitude I have altered the title of the second part to Miscellaneous Essays and Problems. W.W.R.B. Trinity College, Cambridge. 13 May, 1905. v TABLE OF CONTENTS. PART I. Mathematical Recreations. Chapter I. Some Arithmetical Questions. PAGE Elementary Questions on Numbers (Miscellaneous) . . . . . 4 Arithmetical Fallacies . . . . . 20 Bachet's Weights Problem . . . . . 27 Problems in Higher Arithmetic . . . . . 29 Fermat's Theorem on Binary Powers . . . . . 31 Fermat's Last Theorem . . . . . 32 Chapter II. Some Geometrical Questions. Geometrical Fallacies . . . . . 35 Geometrical Paradoxes . . . . . 42 Colouring Maps . . . . . 44 Physical Geography . . . . . 46 Statical Games of Position . . . . . 48 Three-in-a-row. Extension to p-in-a-row . . . . . 48 Tesselation. Cross-Fours . . . . . 50 Colour-Cube Problem . . . . . 51 vi TABLE OF CONTENTS. vii PAGE Dynamical Games of Position . . . . . 52 Shunting Problems . . . . . 53 Ferry-Boat Problems . . . . . 55 Geodesic Problems . . . . . 57 Problems with Counters placed in a row . . . . . 58 Problems on a Chess-board with Counters or Pawns . . . . 60 Guarini's Problem . . . . . 63 Geometrical Puzzles (rods, strings, &c.) . . . . . 64 Paradromic Rings . . . . . 64 Chapter III. Some Mechanical Questions. Paradoxes on Motion . . . . . 67 Force, Inertia, Centrifugal Force . . . . . 70 Work, Stability of Equilibrium, &c. . . . . 72 Perpetual Motion . . . . . . 75 Models . . . . . 78 Sailing quicker than the Wind . . . . . 79 Boat moved by a rope inside the boat . . . . . 81 Results dependent on Hauksbee's Law . . . . . 82 Cut on a tennis-ball. Spin on a cricket-ball . . . . . 83 Flight of Birds . . . . . .

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. . . . . 284 Elliptic, Parabolic and Hyperbolic Geometries compared . 284 Non-Euclidean Geometries of three or more dimensions . . . . 286 Chapter XIII. Time and its Measurement. Units for measuring durations (days, weeks, months, years) . . 288 The Civil Calendar (Julian, Gregorian, &c.) . . . . . 291 The Ecclesiastical Calendar (date of Easter) . . . . . 293 xiv TABLE OF CONTENTS. PAGE Day of the week corresponding to a given date . . . . . 296 Means of measuring Time . . . . . 296 Styles, Sun-dials, Sun-rings . . . . . 296 Water-clocks, Sand-clocks, Graduated Candles . . . . . 300 Clocks and Watches . . . . . 300 Watches as Compasses . . . . . 302 Chapter XIV. Matter and Ether Theories. Hypothesis of Continuous Matter . . . . . 305 Atomic Theories . . . . . 305 Popular Atomic Hypothesis . . . . . 305 Boscovich's Hypothesis . . . . . 306 Hypothesis of an Elastic Solid Ether. Labile Ether . . . . . 306 Dynamical Theories . . . . . 307 The Vortex Ring Hypothesis . . . . . 307 The Vortex Sponge Hypothesis . . . . . 309 The Ether-Squirts Hypothesis . . . . . 309 The Electron Hypothesis . . . . . 310 Speculations due to investigations on Radio-activity . . . . 310 The Bubble Hypothesis . . . . . 312 Conjectures as to the cause of Gravity . . . . . 313 Conjectures to explain the finite number of species of Atoms . 317 Size of the molecules of bodies . . . . . 319 Index . . . . . 322 Notices of some works—chiefly historico-mathematical . . . . . 334 Project Gutenberg Licensing Information . . . . . 353 PART I. Mathematical Recreations. "Les hommes ne sont jamais plus ingénieux que dans l'invention des jeux; l'esprit s'y trouve à son aise. . . . Après les jeux qui dépendent uniquement des nombres viennent les jeux où entre la situation. . . . Après les jeux où n'entrent que le nombre et la situation viendraient les jeux où entre le mouvement. . . . Enfin il serait a souhaiter qu'on eût un cours entier des jeux, traités mathématiquement." (Leibnitz: letter to De Montmort, July 29, 1715.) 1 CHAPTER I. SOME ARITHMETICAL QUESTIONS. The interest excited by statements of the relations between numbers of certain forms has been often remarked. The majority of works on mathematical recreations include several such problems, which are obvious to any one acquainted with the elements of algebra, but which to many who are ignorant of that subject possess the same kind of charm that some mathematicians find in the more recondite propositions of higher arithmetic. I shall devote the bulk of this chapter to these elementary problems, but I append a few remarks on one or two questions in the theory of numbers. Before entering on the subject of the chapter, I may add that a large proportion of the elementary questions mentioned here and in the following two chapters are taken from one of two sources. The first of these is the classical Problèmes plaisans et délectables, by C.G. Bachet, sieur de Méziriac, of which the first edition was published in 1612 and the second in 1624:

it is to the edition of 1624 that the references hereafter given apply. Several of Bachet's problems are taken from the writings of Alcuin, Pacioli di Burgo, Tartaglia, or Cardan, and possibly some of them are of oriental origin, but I have made no attempt to add such references. The other source to which I alluded above is Ozanam's Récréations mathématiques et physiques. The greater portion of the original edition, published in two volumes at Paris in 1694, was a compilation from the works of Bachet, Leurechon, Mydorge, van Etten, and Oughtred: this part is excellent, but the same cannot be said of the additions due to Ozanam. In the Biographie Universelle allusion is made to subsequent editions issued in 1720, 1735, 1741, 1778, 2 CH. I] ARITHMETICAL RECREATIONS. 3 and 1790; doubtless these references are correct, but the following editions, all of which I have seen, are the only ones of which I have any knowledge. In 1696 an edition was issued at Amsterdam. In 1723— six years after the death of Ozanam—one was issued in three volumes, with a supplementary fourth volume, containing (among other things) an appendix on puzzles: I believe that it would be difficult to find in any of the books current in England on mathematical amusements as many as a dozen puzzles which are not contained in one of these four volumes. Fresh editions were issued in 1741, 1750 (the second volume of which bears the date 1749), 1770, and 1790. The edition of 1750 is said to have been corrected by Montucla on condition that his name should not be associated with it; but the edition of 1790 is the earliest one in which reference is made to these corrections, though the editor is referred to only as Monsieur M***. Montucla expunged most of what was actually incorrect in the older editions, and added several historical notes, but unfortunately his scruples prevented him from striking out the accounts of numerous trivial experiments and truisms which overload the work. An English translation of the original edition appeared in 1708, and I believe ran through four editions, the last of them being published in Dublin in 1790. Montucla's revision of 1790 was translated by C. Hutton, and editions of this were issued in 1803, in 1814, and (in one volume) in 1840: my references are to the editions of 1803 and 1840. I proceed now to enumerate some of the elementary questions connected with numbers which for nearly three centuries have formed a large part of most compilations of mathematical amusements. They are given here mainly for their historical—not for their arithmetical— interest; and perhaps a mathematician may well omit them, and pass at once to the latter part of this chapter. These questions are of the nature of tricks or puzzles and I follow the usual course and present them in that form. I may note however that most of them are not worth proposing, even as tricks, unless either the modus operandi is disguised or the result arrived at is different from that expected; but, as I am not writing on conjuring, I refrain from alluding to the means of disguising the operations indicated, and give merely a bare enumeration of the steps essential to the success of the method used, though I may recall the

fundamental rule that no trick, however good, will bear immediate repetition, and that, if it is 4 ARITHMETICAL RECREATIONS. [CH. I necessary to appear to repeat it, a different method of obtaining the result should be used. To find a number selected by some one. There are innumerable ways of finding a number chosen by some one, provided the result of certain operations on it is known. I confine myself to methods typical of those commonly used. Any one acquainted with algebra will find no difficulty in modifying the rules here given or framing new ones of an analogous nature. First Method * . (i) Ask the person who has chosen the number to treble it. (ii) Enquire if the product is even or odd: if it is even, request him to take half of it; if it is odd, request him to add unity to it and then to take half of it. (iii) Tell him to multiply the result of the second step by 3. (iv) Ask how many integral times 9 divides into the latter product: suppose the answer to be n. (v) Then the number thought of was 2n or 2n + 1, according as the result of step (i) was even or odd. The demonstration is obvious. Every even number is of the form 2n, and the successive operations applied to this give (i) 6n, which is even; (ii) 1 2 6n = 3n; (iii) 3 × 3n = 9n; (iv) 1 9 9n = n; (v) 2n. Every odd number is of the form 2n + 1, and the successive operations applied to this give (i) 6n + 3, which is odd; (ii) 1 2 (6n + 3 + 1) = 3n + 2; (iii) 3(3n + 2) = 9n + 6; (iv) 1 9 (9n + 6) = n + a remainder; (v) 2n + 1. These results lead to the rule given above. Second Method† . Ask the person who has chosen the number to perform in succession the following operations. (i) To multiply the number by 5. (ii) To add 6 to the product. (iii) To multiply the sum by 4. (iv) To add 9 to the product. (v) To multiply the sum by 5. Ask to be told the result of the last operation: if from this product 165 is subtracted, and then the remainder is divided by 100, the quotient will be the number thought of originally. For let n be the number selected. Then the successive operations applied to it give (i) 5n; (ii) 5n + 6; (iii) 20n + 24; (iv) 20n + 33; (v) 100n + 165. Hence the rule. Third Method‡ . Request the person who has thought of the number to perform the following operations. (i) To multiply it by any number you like, say, a. (ii) To divide the product by any number, * Bachet, Problèmes plaisans, Lyons, 1624, problem i, p. 53. † A similar rule was given by Bachet, problem iv, p. 74. ‡ Bachet, problem v, p. 80. CH. I] ELEMENTARY TRICKS AND PROBLEMS. 5 say, b. (iii) To multiply the quotient by c. (iv) To divide this result by d. (v) To divide the final result by the number selected originally. (vi) To add to the result of operation (v) the number thought of at first. Ask for the sum so found: then, if ac/bd is subtracted from this sum, the remainder will be the number chosen originally. For, if n was the number selected, the result of the first four operations is to form nac/bd; operation (v) gives ac/bd; and (vi) gives n + (ac/bd), which number is mentioned. But ac/bd is known; hence, subtracting it from the number mentioned, n is found. Of course a, b, c, d may have any numerical values it is liked to assign to them. For example, if a = 12, b = 4, c = 7, d = 3 it is sufficient to subtract 7 from the final result in order to obtain the number originally

selected. Fourth Method * . Ask some one to select a number less than 90. (i) Request him to multiply it by 10, and to add any number he pleases, a, which is less than 10. (ii) Request him to divide the result of step (i) by 3, and to mention the remainder, say, b. (iii) Request him to multiply the quotient obtained in step (ii) by 10, and to add any number he pleases, c, which is less than 10. (iv) Request him to divide the result of step (iii) by 3, and to mention the remainder, say d, and the third digit (from the right) of the quotient; suppose this digit is e. Then, if the numbers a, b, c, d, e are known, the original number can be at once determined. In fact, if the number is 9x + y, where x ⩾ 9 and y ⩾ 8, and if r is the remainder when a − b + 3(c − d) is divided by 9, we have x = e, y = 9 − r. The demonstration is not difficult. For if the selected number is 9x+y, step (i) gives 90x+10y+a; (ii) let y+a = 3n+b, then the quotient obtained in step (ii) is 30x+3y+n; step (iii) gives 300x+30y+10n+c; (iv) let n + c = 3m + d, then the quotient obtained in step (iv) is 100x + 10y + 3n + m, which I will denote by Q. Now the third digit in Q must be x, because, since y ⩾ 8 and a ⩾ 9, we have n ⩾ 5; and since n ⩾ 5 and c ⩾ 9, we have m ⩾ 4; therefore 10y + 3n + m ⩾ 99. Hence the third or hundreds digit in Q is x. Again, from the relations y + a = 3n + b and n + c = 3m + d, we have 9m − y = a − b + 3(c − d): hence, if r is the remainder when a−b+3(c−d) is divided by 9, we have y = 9−r. [This is always true, if we make r positive; but if a−b+3(c−d) is negative, it is simpler to take y as equal to its numerical value; or we may prevent the occurrence of * Educational Times, London, May 1, 1895, vol. xlviii, p. 234. 6 ARITHMETICAL RECREATIONS. [CH. I this case by assigning proper values to a and c.] Thus x and y are both known, and therefore the number selected, namely 9x + y, is known. Fifth Method * . Ask any one to select a number less than 60. (i) Request him to divide it by 3 and mention the remainder; suppose it to be a. (ii) Request him to divide it by 4, and mention the remainder; suppose it to be b. (iii) Request him to divide it by 5, and mention the remainder; suppose it to be c. Then the number selected is the remainder obtained by dividing 40a + 45b + 36c by 60. This method can be generalized and then will apply to any number chosen. Let a ′ , b′ , c′ , . . . be a series of numbers prime to one another, and let p be their product. Let n be any number less than p, and let a, b, c, . . . be the remainders when n is divided by a ′ , b′ , c′ , . . . respectively. Find a number A which is a multiple of the product b ′ c ′d ′ · · · and which exceeds by unity a multiple of a ′ . Find a number B which is a multiple of a ′ c ′d ′ · · · and which exceeds by unity a multiple of b ′ ; and similarly find analogous numbers C, D, ... Rules for the calculation of A, B, C, . . . are given in the theory of numbers, but in general, if the numbers a ′ , b′ , c′ , . . . are small, the corresponding numbers, A, B, C, . . . can be found by inspection. I proceed to show that n is equal to the remainder when Aa + Bb + Cc + · · · is divided by p. Let N = Aa+Bb+Cc+· · · , and let M(x) stand for a multiple of x. Now A = M(a ′) + 1, therefore Aa = M(a ′) + a. Hence, if the first term in N, that is Aa, is divided by a ′ , the remainder is a. Again, B is a multiple of a ′

c ’d ’ · · · . Therefore Bb is exactly divisible by a ’ . Similarly Cc, Dd, . . . are each exactly divisible by a ’ . Thus every term in N, except the first, is exactly divisible by a ’ . Hence, if N is divided by a ’ , the remainder is a. But if n is divided by a ’ , the remainder is a. Therefore N − n = M(a ’). Similarly N − n = M(b ’), N − n = M(c ’), ... But a ’ , b’ , c’ , . . . are prime to one another. ∴ N − n = M(a ’ b ’ c ’ · · ·) = M(p), that is, N = M(p) + n . * Bachet, problem vi, p. 84: Bachet added, on p. 87, a note on the previous history of the problem. CH. I] ELEMENTARY TRICKS AND PROBLEMS. 7 Now n is less than p, hence if N is divided by p, the remainder is n. The rule given by Bachet corresponds to the case of a ’ = 3, b ’ = 4, c ’ = 5, p = 60, A = 40, B = 45, C = 36. If the number chosen is less than 420, we may take a ’ = 3, b ’ = 4, c ’ = 5, d ’ = 7, p = 420, A = 280, B = 105, C = 336, D = 120. To find the result of a series of operations performed on any number (unknown to the questioner) without asking any questions. All rules for solving such problems ultimately depend on so arranging the operations that the number disappears from the final result. Four examples will suffice. First Example* . Request some one to think of a number. Suppose it to be n. Ask him (i) to multiply it by any number you please (say) a; (ii) then to add (say) b; (iii) then to divide the sum by (say) c. (iv) Next, tell him to take a/c of the number originally chosen; and (v) to subtract this from the result of the third operation. The result of the first three operations is (na + b)/c, and the result of operation (iv) is na/c: the difference between these is b/c, and therefore is known to you. For example, if a = 6, b = 12, c = 4, and a/c = 1 1 2 , then the final result is 3. Second Example † . Ask A to take any number of counters that he pleases: suppose that he takes n counters. (i) Ask some one else, say B, to take p times as many, where p is any number you like to choose. (ii) Request A to give q of his counters to B, where q is any number you like to select. (iii) Next, ask B to transfer to A a number of counters equal to p times as many counters as A has in his possession. Then there will remain in B’s hands q(p+ 1) counters: this number is known to you; and the trick can be finished either by mentioning it or in any other way you like. The reason is as follows. The result of operation (ii) is that B has pn + q counters, and A has n − q counters. The result of (iii) is that B transfers p(n − q) counters to A: hence he has left in his possession (pn + q) − p(n − q) counters, that is, he has q(p + 1). For example, if originally A took any number of counters, then (if you chose p equal to 2), first you would ask B to take twice as many counters as A had done; next (if you chose q equal to 3) you would ask * Bachet, problem viii, p. 102. † Bachet, problem xiii, p. 123: Bachet presented the above trick in a somewhat more general form, but one which is less effective in practice. 8 ARITHMETICAL RECREATIONS. [CH. I A to give 3 counters to B; and then you would ask B to give to A a number of counters equal to twice the number then in A’s possession; after this was done you would know that B had 3(2 + 1), that is, 9 left. This trick (as also some of the following problems) may be performed equally

well with one person, in which case A may stand for his right hand and B for his left hand. Third Example. Ask some one to perform in succession the following operations. (i) Take any number of three digits. (ii) Form a new number by reversing the order of the digits. (iii) Find the difference of these two numbers. (iv) Form another number by reversing the order of the digits in this difference. (v) Add together the results of (iii) and (iv). Then the sum obtained as the result of this last operation will be 1089. An illustration and the explanation of the rule are given below. (i) 237 100a + 10b + c (ii) 732 100c + 10b + a (iii) 495 100(a − c − 1) + 90 + (10 + c − a) (iv) 594 100(10 + c − a) + 90 + (a − c − 1) (v) 1089 900 + 180 + 9 Fourth Example* . The following trick depends on the same principle. Ask some one to perform in succession the following operations. (i) To write down any sum of money less than £12; the number of pounds not being the same as the number of pence. (ii) To reverse this sum, that is, to write down a sum of money obtained from it by interchanging the numbers of pounds and pence. (iii) To find the difference between the results of (i) and (ii). (iv) To reverse this difference. (v) To add together the results of (iii) and (iv). Then this sum will be £12. 18s. 11d. * Educational Times Reprints, 1890, vol. liii, p. 78. CH. I] ELEMENTARY TRICKS AND PROBLEMS. 9 For instance, take the sum £10. 17s. 5d.; we have £. s. d. (i) . . . . . 10 17 5 (ii) . . . . . 5 17 10 (iii) . . . . . 4 19 7 (iv) . . . . . 7 19 4 (v) . . . . . 12 18 11 The following work explains the rule, and shows that the final result is independent of the sum written down initially. £. s. d. (i) . . . . . a b c (ii) . . . . . c b a (iii) . . . . . a − c − 1 19 c − a + 12 (iv) . . . . . c − a + 12 19 a − c − 1 (v) . . . . . 11 38 11 The rule can be generalized to cover any system of monetary units. Problems involving Two Numbers. I proceed next to give a couple of examples of a class of problems which involve two numbers. First Example* . Suppose that there are two numbers, one even and the other odd, and that a person A is asked to select one of them, and that another person B takes the other. It is desired to know whether A selected the even or the odd number. Ask A to multiply his number by 2 (or any even number) and B to multiply his by 3 (or any odd number). Request them to add the two products together and tell you the sum. If it is even, then originally A selected the odd number, but if it is odd, then originally A selected the even number. The reason is obvious. Second Example † . The above rule was extended by Bachet to any two numbers, provided they were prime to one another and one of them * Bachet, problem ix, p. 107. † Bachet, problem xi, p. 113. 10 ARITHMETICAL RECREATIONS. [CH. I was not itself a prime. Let the numbers be m and n, and suppose that n is exactly divisible by p. Ask A to select one of these numbers, and B to take the other. Choose a number prime to p, say q. Ask A to multiply his number by q, and B to multiply his number by p. Request them to add the products together and state the sum. Then A originally selected m or n, according as this result is not or is divisible by p. For example, m = 7, n = 15, p = 3, q = 2.

Problems depending on the Scale of Notation. Many of the rules for finding two or more numbers depend on the fact that in arithmetic an integral number is denoted by a succession of digits, where each digit represents the product of that digit and a power of ten, and the number is equal to the sum of these products. For example, 2017 signifies (2×103)+ (0×102)+ (1×10)+7; that is, the 2 represents 2 thousands, i.e. the product of 2 and 103 , the 0 represents 0 hundreds, i.e. the product of 0 and 102 ; the 1 represents 1 ten, i.e. the product of 1 and 10, and the 7 represents 7 units. Thus every digit has a local value. The application to tricks connected with numbers will be understood readily from three illustrative examples. First Example* . A common conjuring trick is to ask a boy among the audience to throw two dice, or to select at random from a box a domino on each half of which is a number. The boy is then told to recollect the two numbers thus obtained, to choose either of them, to multiply it by 5, to add 7 to the result, to double this result, and lastly to add to this the other number. From the number thus obtained, the conjurer subtracts 14, and obtains a number of two digits which are the two numbers chosen originally. For suppose that the boy selected the numbers a and b. Each of these is less than ten—dice or dominoes ensuring this. The successive operations give (i) 5a; (ii) 5a+7; (iii) 10a+14; (iv) 10a+14+b. Hence, if 14 is subtracted from the final result, there will be left a number of two digits, and these digits are the numbers selected originally. An analogous trick might be performed in other scales of notation if it was thought necessary to disguise the process further. * Some similar questions were given by Bachet in problem xii, p. 117; by Oughtred in his Mathematicall Recreations (translated from or founded on van Etten's work of 1633), London, 1653, problem xxxiv; and by Ozanam, part i, chapter x. CH. I] ELEMENTARY TRICKS AND PROBLEMS. 11 Second Example* . Similarly, if three numbers, say, a, b, c, are chosen, then, if each of them is less than ten, they can be found by the following rule. (i) Take one of the numbers, say, a, and multiply it by 2. (ii) Add 3 to the product; the result is 2a + 3. (iii) Multiply this by 5, and add 7 to the product; the result is 10a + 22. (iv) To this sum add the second number. (v) Multiply the result by 2. (vi) Add 3 to the product. (vii) Multiply by 5, and add the third number to the product. The result is 100a+ 10b+c+ 235. Hence, if the final result is known, it is sufficient to subtract 235 from it, and the remainder will be a number of three digits. These digits are the numbers chosen originally. I have seen a similar rule applied to determine the birthday and age of some one in the audience. The result is a number of six digits, of which the first two digits give the day of the month, the middle two digits the number of the month, and the last two digits the present age. Third Example† . The following rule for finding a man's age is of the same kind. Take the tens digit of the year of birth; (i) multiply it by 5; (ii) to the product add 2; (iii) multiply the result by 2; (iv) to this product add the units digit of the birth-year; (v) subtract the sum from 110. The result is the man's age in 1906. The algebraic

proof of the rule is obvious. Let a and b be the tens and units digits of the birth-year. The successive operations give (i) 5a; (ii) 5a + 2; (iii) 10a + 4 (iv) 10a + 4 + b; (v) 106 − (10a + b), which is his age in 1906. The rule can be easily adapted to give the age in any specified year. Other Problems with numbers in the denary scale. I may mention here two or three other slight problems dependent on the common scale of notation, which, as far as I am aware, are unknown to most compilers of books of puzzles. First Problem. The first of them is as follows. Take any number of three digits: reverse the order of the digits: subtract the number so formed from the original number: then, if the last digit of the difference is mentioned, all the digits in the difference are known. For let a be the hundreds digit of the number chosen, b be the tens digit, and c be the units digit. Therefore the number is 100a + 10b + c. The number obtained by reversing the digits is 100c + 10b + a. The * Bachet gave some similar questions in problem xii, p. 117. † A similar question was given by Laisant and Perrin in their Algèbre, Paris, 1892; and in L'Illustration for July 13, 1895. 12 ARITHMETICAL RECREATIONS. [CH. I difference of these numbers is equal to (100a+c)−(100c+a), that is, to 99(a − c). But a − c is not greater than 9, and therefore the remainder can only be 99, 198, 297, 396, 495, 594, 693, 792, or 891—in each case the middle digit being 9 and the digit before it (if any) being equal to the difference between 9 and the last digit. Hence, if the last digit is known, so is the whole of the remainder. Second Problem. The second problem is somewhat similar and is as follows. (i) Take any number; (ii) reverse the digits; (iii) find the difference between the number formed in (ii) and the given number; (iv) multiply this difference by any number you like to name; (v) cross out any digit except a nought; (vi) read the remainder. Then the sum of the digits in the remainder subtracted from the next highest multiple of nine will give the figure struck out. This follows at once from the fact that the result of operation (iii)— and therefore also of operation (iv)—is necessarily a multiple of nine, and it is known that the sum of the digits of every multiple of nine is itself a multiple of nine. Miscellaneous Questions. Besides these problems, properly so called, there are numerous questions on numbers which can be solved empirically, but which are of no special mathematical interest. As an instance I may quote a question which attracted some attention in London in 1893, and may be enunciated as follows. With the seven digits 9, 8, 7, 6, 5, 4, 0 express three numbers whose sum is 82: each digit, being used only once, and the use of the usual notations for fractions being allowed. One solution is $80.69 +\dot{} .74 +\dot{} .5\dot{}$. Similar questions are with the ten digits, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, to express numbers whose sum is unity; a solution is 35/70 and 148/296. If the sum were 100, a solution would be 50, 49, 1/2, and 38/76. A less straightforward question would be, with the nine digits, 9, 8, 7, 6, 5, 4, 3, 2, 1, to express four numbers whose sum is 100; a solution is 78, 15, √2 9, and √3 64. Problems with a series of things which are numbered. Any collection of things which can be distinguished one

from the other—especially if numbered consecutively—afford easy concrete illustrations of questions depending on these elementary properties of numbers. As examples I proceed to enumerate a few familiar tricks. The first two of these are commonly shown by the use of a watch, the last three are best exemplified by the use of a pack of playing CH. I] ELEMENTARY TRICKS AND PROBLEMS. 13 cards, which readily lend themselves to such illustrations, and I present them in these forms. First Example* . The first of these examples is connected with the hours marked on the face of a watch. In this puzzle some one is asked to think of some hour, say, m, and then to touch a number that marks another hour, say, n. Then if, beginning with the number touched, he taps each successive hour marked on the face of the watch, going in the opposite direction to that in which the hands of the watch move, and reckoning to himself the taps as m, (m + 1), &c., the (n + 12)th tap will be on the hour he thought of. For example, if he thinks of v and touches ix, then, if he taps successively ix, viii, vii, vi, . . . , going backwards and reckoning them respectively as 5, 6, 7, 8, . . . , the tap which he reckons as 21 will be on the v. The reason of the rule is obvious, for he arrives finally at the (n + 12 − m)th hour from which he started. Now, since he goes in the opposite direction to that in which the hands of the watch move, he has to go over (n − m) hours to reach the hour m: also it will make no difference if in addition he goes over 12 hours, since the only effect of this is to take him once completely round the circle. Now (n + 12 − m) is always positive, since m < 12, and therefore if we make him pass over (n + 12 − m) hours we can give the rule in a form which is equally valid whether m is greater or less than n. Second Example. The following is another well-known way of indicating on a watch-dial an hour selected by some one. I do not know who first invented it. If the hour is tapped by a pencil beginning at vii and proceeding backwards round the dial to vi, v, &c., and if the person who selected the number counts the taps, reckoning from the hour selected (thus, if he selected x, he would reckon the first tap as the 11th), then the 20th tap as reckoned by him will be on the hour chosen. For suppose he selected the nth hour. Then the 8th tap is on xii and is reckoned by him as the (n + 8)th. The tap which he reckons as (n + 9)th is on xi, and generally the tap which he reckons as (n + p)th is on the hour (20 − p). Hence, putting p − 20 − n, the tap which he reckons as 20th is on the hour n. Of course the hours indicated by the first seven taps are immaterial. * Bachet, problem xx, p. 155; Oughtred, Mathematicall Recreations, London, 1653, p. 28. 14 ARITHMETICAL RECREATIONS. [CH. I Extension. It is obvious that the same trick can be performed with any collection of m things, such as cards or dominoes, which are distinguishable one from the other, provided m < 20. For suppose the m things are arranged on a table in some numerical order, and the nth thing is selected by a spectator. Then the first (19 − m) taps are immaterial, the (20 − m)th tap must be on the mth thing and be reckoned by the spectator as the (n+ 20−m)th, the (20−m+ 1)th tap must be on the (m−1)th thing and be

reckoned as the (n+20−m+1)th, and finally the (20 − n)th tap will be on the nth thing and is reckoned as the 20th tap. Third Example. The following example rests on an extension of the method used in the last question; it is very simple, but I have never seen it previously described in print. Suppose that a pack of n cards is given to some one who is asked to select one out of the first m cards and to remember (but not to mention) what is its number from the top of the pack (say it is actually the xth card in the pack). Then take the pack, reverse the order of the top m cards (which can be easily effected by shuffling), and transfer y cards (where y < n − m) from the bottom to the top of the pack. The effect of this is that the card originally chosen is now the (y + m − x + 1)th from the top. Return to the spectator the pack so rearranged, and ask that the top card be counted as the (x + 1)th, the next as the (x + 2)th, and so on, in which case the card originally chosen will be the (y + m + 1)th. Now y and m can be chosen as we please, and may be varied every time the trick is performed; thus any one unskilled in arithmetic will not readily detect the modus operandi. Fourth Example* . Place a card on the table, and on it place as many other cards from the pack as with the number of pips on the card will make a total of twelve. For example, if the card placed first on the table is the five of clubs, then seven additional cards must be placed on it. The court cards may have any values assigned to them, but usually they are reckoned as tens. This is done again with another card, and thus another pile is formed. The operation may be repeated either only three or four times or as often as the pack will permit of such piles being formed. If finally there are p such piles, and if the number of cards left over is r, then the sum of the number of pips on the bottom cards of all the piles will be 13(p − 4) + r. * A particular case of this problem was given by Bachet, problem xvii, p. 138. CH. I] MEDIEVAL PROBLEMS IN ARITHMETIC. 15 For, if x is the number of pips on the bottom card of a pile, the number of cards in that pile will be 13 − x. A similar argument holds for each pile. Also there are 52 cards in the pack; and this must be equal to the sum of the cards in the p piles and the r cards left over. ∴ (13 − x1) + (13 − x2) + · · · + (13 − xp) + r = 52 , ∴ 13p − (x1 + x2 + · · · + xp) + r = 52 , ∴ x1 + x2 + · · · + xp = 13p − 52 + r = 13(p − 4) + r . More generally, if a pack of n cards is taken, and if in each pile the sum of the pips on the bottom card and the number of cards put on it is equal to m, then the sum of the pips on the bottom cards of the piles will be (m + 1)p + r − n. In an écarté pack n = 32, and it is convenient to take m = 15. Fifth Example. It may be noticed that cutting a pack of cards never alters the relative position of the cards provided that, if necessary, we regard the top card as following immediately after the bottom card in the pack. This is used in the following trick* . Take a pack, and deal the cards face upwards on the table, calling them one, two, three, &c. as you put them down, and noting in your own mind the card first dealt. Ask some one to select a card and recollect its number. Turn the pack over, and let it be cut (not shuffled) as often as you like. Enquire what was the

number of the card chosen. Then, if you deal, and as soon as you come to the original first card begin (silently) to count, reckoning this as one, the selected card will appear at the number mentioned. Of course, if all the cards are dealt before reaching this number, you must turn the cards over and go on counting continuously. Another similar trick is performed by handing the pack face upwards to some one, and asking him to select a card and state its number, reckoning from the top; suppose it to be the nth. Next, ask him to choose a number at which it shall appear in the pack; suppose he selects the mth. Take the pack and secretly move m−n cards from the bottom to the top (or if n is greater than m, then n − m from the top to the bottom) and of course the card will be in the required position. * Bachet, problem xix, p. 152. 16 ARITHMETICAL RECREATIONS. [CH. I Medieval Problems in Arithmetic. Before leaving the subject of these elementary questions, I may mention a few problems which for centuries have appeared in nearly every collection of mathematical recreations, and therefore may claim what is almost a prescriptive right to a place here. First Example* . The following is a sample of one class of these puzzles. Three men robbed a gentleman of a vase, containing 24 ounces of balsam. Whilst running away they met in a wood with a glass-seller, of whom in a great hurry they purchased three vessels. On reaching a place of safety they wished to divide the booty, but they found that their vessels contained 5, 11, and 13 ounces respectively. How could they divide the balsam into equal portions? Problems like this can be worked out only by trial: there are several solutions, of which one is as follows. The vessels can contain . . . . . 24 oz. 13 oz. 11 oz. 5 oz. Their contents originally are 24 . . . 0 . . . 0 . . . 0 . . . First, make their contents . . . 0 . . . 8 . . . 11 . . . 5 . . . Second, ” ” . . . 16 . . . 8 . . . 0 . . . 0 . . . Third, ” ” . . . 16 . . . 0 . . . 8 . . . 0 . . . Fourth, ” ” . . . 3 . . . 13 . . . 8 . . . 0 . . . Fifth, ” ” . . . 3 . . . 8 . . . 8 . . . 5 . . . Sixth, ” ” . . . 8 . . . 8 . . . 8 . . . 0 . . . Second Example† . The next of these is a not uncommon game, played by two people, say A and B. A begins by mentioning some number not greater than (say) six, B may add to that any number not greater than six, A may add to that again any number not greater than six, and so on. He wins who is the first to reach (say) 50. Obviously, if A calls 43, then whatever B adds to that, A can win next time. Similarly, if A calls 36, B cannot prevent A’s calling 43 the next time. In this way it is clear that the key numbers are those forming the arithmetical progression 43, 36, 29, 22, 15, 8, 1; and whoever plays first ought to win. Similarly, if no number greater than m may be added at any one time, and n is the number to be called by the victor, then the key num- * Some similar problems were given by Bachet, appendix, problem iii, p. 206; problem ix, p. 233; by Oughtred in his Recreations, p. 22: and by Ozanam, 1803 edition, vol. i, p. 174; 1840 edition, p. 79. Earlier instances occur in Tartaglia’s writings. † Bachet, problem xxii, p. 170. CH. I] MEDIEVAL PROBLEMS IN ARITHMETIC. 17 bers will be those forming the arithmetical progression whose common difference is m + 1 and whose smallest term is the remainder

obtained by dividing n by m + 1. The same game may be played in another form by placing n coins, matches, or other objects on a table, and directing each player in turn to take away not more than m of them. Whoever takes away the last coin wins. Obviously the key numbers are multiples of m + 1, and the first player who is able to leave an exact multiple of (m + 1) coins can win. Perhaps a better form of the game is to make that player lose who takes away the last coin, in which case each of the key numbers exceeds by unity a multiple of m + 1. Mr Loyd has also suggested* a modification which is equivalent to placing n counters in the form of a circle, and allowing each player in succession to take away not more than m of them which are in unbroken sequence: m being less than n and greater than unity. In this case the second of the two players can always win. Recent Extension of this Problem. The games last described are very simple, but if we impose on the original problem the additional restriction that each player may not add the same number more than three times, the analysis becomes by no means easy. It is difficult in this case to say whether it is an advantage to begin or not. I have never seen this extension described in print, and I will therefore enunciate it at length. Suppose that each player is given eighteen cards, three of them marked 6, three marked 5, three marked 4, three marked 3, three marked 2, and three marked 1. They play alternately; A begins by playing one of his cards; then B plays one of his, and so on. He wins who first plays a card which makes the sum of the points or numbers on all the cards played exactly equal to 50, but he loses if he plays a card which makes this sum exceed 50. The game can be played mentally or by noting the numbers on a piece of paper, and in practice it is unnecessary to use cards. Thus, if they play as follows A, 4; B, 3; A, 1; B, 6; A, 3; B, 4; A, 4; B, 5; A, 4; B, 4; A, 5; the game stands at 43. B can now win, for he may safely play 3, since A has not another 4 wherewith to follow it; and if A plays less than 4, B will win the next time. Again, if they play * Tit-Bits, London, July 17, Aug. 7, 1897. 18 ARITHMETICAL RECREATIONS. [CH. I thus, A, 6; B, 3; A, 1; B, 6; A, 3; B, 4; A, 2; B, 5; A, 1; B, 5; A, 2; B, 5; A, 2; B, 3; A is now forced to play 1, and B wins by playing 1. The game can be also played if each player is given only two cards of each kind. Third Example. The following medieval problem is somewhat more elaborate. Suppose that three people, P, Q, R, select three things, which we may denote by a, e, i, respectively, and that it is desired to find by whom each object was selected* . Place 24 counters on a table. Ask P to take one counter, Q to take two counters, and R to take three counters. Next, ask the person who selected a to take as many counters as he has already, whoever selected e to take twice as many counters as he has already, and whoever selected i to take four times as many counters as he has already. Note how many counters remain on the table. There are only six ways of distributing the three things among P, Q, and R; and the number of counters remaining on the table is different for each way. The remainders may be 1, 2, 3, 5, 6, or 7. Bachet summed up the

results in the mnemonic line Par fer (1) César (2) jadis (3) devint (5) si grand (6) prince (7). Corresponding to any remainder is a word or words containing two syllables: for instance, to the remainder 5 corresponds the word devint. The vowel in the first syllable indicates the thing selected by P, the vowel in the second syllable indicates the thing selected by Q, and of course R selected the remaining thing. Salve certa animae semita vita quies was suggested by Oughtred† as an alternative mnemonic line. Extension. M. Bourlet, in the course of a very kindly notice‡ of the second edition of this work, has given a much neater solution of the above question, and has extended the problem to the case of n people, P0, P1, P2, . . . , Pn−1, each of whom selects one object, out of a collection of n objects, such as dominoes or cards. It is required to know which domino or card was selected by each person. Let us suppose the dominoes to be denoted or marked by the numbers 0, 1, . . . , n − 1, instead of by vowels. Give one counter to P1, two counters to P2, and generally k counters to Pk. Note the number of counters left on the table. Next ask the person who had chosen the * Bachet, problem xxv, p. 187. † Mathematicall Recreations, London, 1653, p. 20. ‡ Bulletin des sciences mathématiques, Paris, 1893, vol. xvii, pp. 105–107. CH. I] MEDIEVAL PROBLEMS IN ARITHMETIC. 19 domino 0 to take as many counters as he had already, and generally whoever had chosen the domino h to take n h times as many dominoes as he had already: thus if Pk had chosen the domino numbered h, he would take n hk counters. Note the total number of counters taken, i.e. P n hk. Divide it by n, then the remainder will be the number on the domino selected by P0; divide the quotient by n, and the remainder will be the number on the domino selected by P1; divide this quotient by n, and the remainder will be the number on the domino selected by P2; and so on. In other words, if the number of counters taken is expressed in the scale of notation whose radix is n, then the (h + 1)th digit from the right will give the number on the domino selected by Ph. Thus in Bachet's problem with 3 people and 3 dominoes, we should first give one counter to Q, and two counters to R, while P would have no counters; then we should ask the person who selected the domino marked 0 or a to take as many counters as he had already, whoever selected the domino marked 1 or e to take three times as many counters as he had already, and whoever selected the domino marked 2 or i to take nine times as many counters as he had already. By noticing the original number of counters, and observing that 3 of these had been given to Q and R, we should know the total number taken by P, Q, and R. If this number were divided by 3, the remainder would be the number of the domino chosen by P; if the quotient were divided by 3 the remainder would be the number of the domino chosen by Q; and the final quotient would be the number of the domino chosen by R. I may add that Bachet also discussed the case when n = 4, which had been previously considered by Diego Palomino in 1599, but as M. Bourlet's method is general, it is unnecessary to discuss further particular

cases. Decimation. The last of these antique problems to which I referred consists in placing men round a circle so that if every nth man is killed the remainder shall be certain specified individuals. When decimation was a not uncommon punishment a knowledge of this kind may have had practical interest. Hegesippus* says that Josephus saved his life by such a device. According to his account, after the Romans had captured Jotopat, Josephus and forty other Jews took refuge in a cave. Josephus, much to his disgust, found that all except himself and one other man were resolved * De Bello Judaico, bk. iii, chaps. 16–18. 20 ARITHMETICAL RECREATIONS. [CH. I to kill themselves, so as not to fall into the hands of their conquerors. Fearing to show his opposition too openly he consented, but declared that the operation must be carried out in an orderly way, and suggested that they should arrange themselves round a circle and that every third person should be killed until but one man was left, who must then commit suicide. It is alleged that he placed himself and the other man in the 31st and 16th place respectively, with a result which will be easily foreseen. The question is usually presented in the following form. A ship, carrying as passengers fifteen Turks and fifteen Christians, encountered a storm, and the pilot declared that, in order to save the ship and crew, one-half of the passengers must be thrown into the sea. To choose the victims the passengers were placed round a circle, and it was agreed that every ninth man should be cast overboard, reckoning from a certain point. It is desired to find an arrangement by which all the Christians should be saved.* Problems like this can be easily solved by counting, but it is impossible to give a general rule. In this case, the Christians, reckoning from the man first counted, must occupy the places 1, 2, 3, 4, 10, 11, 13, 14, 15, 17, 20, 21, 25, 28, 29. This arrangement can be recollected by the positions of the vowels in the following doggerel rhyme, From numbers' aid and art, never will fame depart, where a stands for 1, e for 2, i for 3, o for 4, and u for 5. Hence (looking only at the vowels in the verse) the order is 4 Christians, 5 Turks, 2 Christians, 1 Turk, 3 Christians, 1 Turk, 1 Christian, 2 Turks, 2 Christians, 3 Turks, 1 Christian, 2 Turks, 2 Christians, 1 Turk. Other similar mnemonic lines in French and in Latin were given by Bachet and by Ozanam respectively. Arithmetical Fallacies. I insert next some instances of demonstrations† leading to arithmetical results which are obviously * Bachet, problem xxiii, p. 174. The same problem had been previously enunciated by Tartaglia. † Of the fallacies given in the text, the first, second, and third, are well known; the fourth is not new, but the earliest work in which I recollect seeing it is my Algebra, Cambridge, 1890, p. 430; the fifth is given in G.C. Chrystal's Algebra, CH. I] ARITHMETICAL FALLACIES. 21 impossible. I include algebraical proofs as well as arithmetical ones. The fallacies are so patent that in preparing the first and second editions I did not think such questions worth printing, but, as some correspondents have expressed a contrary opinion, I give them for what they are worth. First fallacy. One of the oldest of

these—and not a very interesting specimen—is as follows. Suppose that a = b, then ab = a 2 . ∴ ab − b 2 = a 2 − b 2 . ∴ b(a − b) = (a + b)(a − b). ∴ b = a + b . ∴ b = 2b . ∴ 1 = 2 . Second Fallacy. Another instance, almost as puerile, is as follows. Let a and b be two unequal numbers, and let c be their arithmetic mean, hence a + b = 2c . ∴ (a + b)(a − b) = 2c(a − b). ∴ a 2 − 2ac = b 2 − 2bc . ∴ a 2 − 2ac + c 2 = b 2 − 2bc + c 2 . ∴ (a − c) 2 = (b − c) 2 . ∴ a = b . Edinburgh, 1889, vol. ii, p. 159; the eighth is due to G.T. Walker, and, as far as I know, has not appeared in any other book; the ninth is due to D'Alembert; and the tenth to F. Galton. A mechanical demonstration that 1 = 2 was given by R. Chartres in Knowledge, July, 1891. J.L.F. Bertrand pointed out that a demonstration that 1 = −1 can be also obtained from the proposition in the Integral Calculus that, if the limits are constant, the order of integration is indifferent; hence the integral to x (from x = 0 to x = 1) of the integral to y (from y = 0 to y = 1) of a function ϕ should be equal to the integral to y (from y = 0 to y = 1) of the integral to x (from x = 0 to x = 1) of ϕ, but if ϕ = (x 2 − y 2)/(x 2 + y 2) 2 , this gives 1 4 π = − 1 4 π. 22 ARITHMETICAL RECREATIONS. [CH. I Third Fallacy. Another example, the idea of which is due to John Bernoulli, may be stated as follows. We have (−1)2 = 1 . Take logarithms, ∴ 2 log(−1) = log 1 = 0 . ∴ log(−1) = 0 . ∴ −1 = e 0 . ∴ −1 = 1 . The same argument may be expressed thus. Let x be a quantity which satisfies the equation e x = −1 . Square both sides, ∴ e 2x = 1 . ∴ 2x = 0 . ∴ x = 0 . ∴ e x = e 0 . But e x = −1 and e 0 = 1, ∴ −1 = 1 . Fourth Fallacy. As yet another instance, we know that log(1 + x) = x − 1 2 x 2 + 1 3 x 3 − · · · . If x = 1, the resulting series is convergent; hence we have log 2 = 1 − 1 2 + 1 3 − 1 4 + 1 5 − 1 6 + 1 7 − 1 8 + 1 9 − · · · . ∴ 2 log 2 = 2 − 1 + 2 3 − 1 2 + 2 5 − 1 3 + 2 7 − 1 4 + 2 9 − · · · . Taking those terms together which have a common denominator, we obtain 2 log 2 = 1 + 1 3 − 1 2 + 1 5 + 1 7 − 1 4 + 1 9 − · · · = 1 − 1 2 + 1 3 − 1 4 + 1 5 − · · · = log 2 . Hence 2 = 1 . CH. I] ARITHMETICAL FALLACIES. 23 Fifth Fallacy. This fallacy is very similar to that last given. We have log 2 = 1 − 1 2 + 1 3 − 1 4 + 1 5 − 1 6 + · · · = 1 + 1 3 + 1 5 + · · · − 1 2 + 1 4 + 1 6 + · · · = 1 + 1 3 + 1 5 + · · · + 1 2 + 1 4 + 1 6 + · · · − 2 1 2 + 1 4 + 1 6 + · · · = 1 + 1 2 + 1 3 + · · · − 1 + 1 2 + 1 3 + · · · = 0 . The error in each of the foregoing examples is obvious, but the fallacies in the next examples are concealed somewhat better. Sixth Fallacy. We can write the identity √ −1 = √ −1 in the form r −1 1 = r 1 −1 , hence √ −1 √ 1 = √ 1 √ −1 , therefore (√ −1)2 = (√ 1)2 , that is, −1 = 1 . Seventh Fallacy. Again, we have √ a × √ b = √ ab . Hence √ −1 × √ −1 = p (−1)(−1), therefore (√ −1)2 = √ 1 , that is, −1 = 1 . Eighth Fallacy. The following demonstration depends on the fact that an algebraical identity is true whatever be the symbols used in it, and it will appeal only to those who are familiar with this fact. We have, as an identity, √ x − y = i √ y − x . . . . . (i), where i stands either for + √ −1 or for − √ −1. Now an identity in x and y is necessarily true whatever numbers x and y may represent. First put x = a and y = b, ∴ √ a − b = i √ b − a . . . . . (ii). 24 ARITHMETICAL RECREATIONS. [CH. I Next put x = b and y = a, ∴ √ b − a = i √ a − b . . . . . (iii). Also since (i)

is an identity, it follows that in (ii) and (iii) the symbol i must be the same, that is, it represents + √ −1 or − √ −1 in both cases. Hence, from (ii) and (iii), we have √ a − b √ b − a = i 2 √ b − a √ a − b , ∴ 1 = i 2 , that is 1 = −1 . Ninth Fallacy. The following fallacy is due to D'Alembert* . We know that if the product of two numbers is equal to the product of two other numbers, the numbers will be in proportion, and from the definition of a proportion it follows that if the first term is greater than the second, then the third term will be greater than the fourth: thus, if ad = bc, then a : b = c : d, and if in this proportion a > b, then c > d. Now if we put a = d = 1 and b = c = −1 we have four numbers which satisfy the relation ad = bc and such that a > b; hence, by the proposition, c > d, that is, −1 > 1, which is absurd. Tenth Fallacy. The mathematical theory of probability leads to various paradoxes: of these one specimen† will suffice. Suppose three coins to be thrown up and the fact whether each comes down head or tail to be noticed. The probability that all three coins come down head is clearly (1 2) 3 , that is, is 1 8 ; similarly the probability that all three come down tail is 1 8 : hence the probability that all the coins come down alike (i.e. either all of them heads or all of them tails) is 1 4 . But, of three coins thus thrown up, at least two must come down alike; now the probability that the third coin comes down head is 1 2 and the probability that it comes down tail is 1 2 , thus the probability that it comes down the same as the other two coins is 1 2 : hence the probability that all the coins come down alike is 1 2 . I leave to my readers to say whether either of these conflicting conclusions is right and if so, which. Arithmetical Problems. To the above examples I may add the following questions, which I have often propounded in past years: though not fallacies, they may serve to illustrate the fact that the answer to * Opuscules mathématiques, Paris, 1761, vol. i, p. 201. † See Nature, Feb. 15, March 1, 1894, vol. xlix, pp. 365–366, 413. CH. I] ARITHMETICAL FALLACIES. 25 an arithmetical question is frequently different to what a hasty reader might suppose. The first of these questions is as follows. Two clerks are engaged, one at a salary commencing at the rate of (say) £100 a year with a rise of £20 every year, the other at a salary commencing at the same rate (£100 a year) with a rise of £5 every half-year, in each case payments being made half-yearly: which has the larger income? The answer is the latter; for in the first year the first clerk receives £100, but the second clerk receives £50 and £55 as his two half-yearly payments and thus receives in all £105. In the second year the first clerk receives £120, but the second clerk receives £60 and £65 as his two half-yearly payments and thus receives in all £125. In fact the second clerk will always receive £5 a year more than the first clerk. As another question take the following. A man bets 1/nth of his money on an even chance (say tossing heads or tails with a penny): he repeats this again and again, each time betting 1/nth of all the money then in his possession. If, finally, the number of times he has won is equal to the number of times he has lost, has he gained or lost by the transaction?

He has, in fact, lost. Here is another simple question to which not unfrequently I have received incorrect answers. One tumbler is half-full of wine, another is half-full of water: from the first tumbler a teaspoonful of wine is taken out and poured into the tumbler containing the water: a teaspoonful of the mixture in the second tumbler is then transferred to the first tumbler. As the result of this double transaction, is the quantity of wine removed from the first tumbler greater or less than the quantity of water removed from the second tumbler? Nineteen people out of twenty will say it is greater, but this is not the case. Routes on a Chess-Board. A not uncommon problem can be generalised as follows* . Construct a rectangular board of mn cells (or small squares) by ruling m + 1 vertical lines and n + 1 horizontal lines. It is required to know how many routes can be taken from the top left-hand corner to the bottom right-hand corner, the motion being along the ruled lines and its direction being always either vertically downwards or horizontally from left to right. The answer is (m+n)!/m!n!: thus on a square board containing 16 cells (i.e. one-quarter of a chess-board), * The substance of the problem was given in a scholarship paper set at Cambridge about 30 years ago, and possibly was not new then. 26 ARITHMETICAL RECREATIONS. [CH. I where m = n = 4, there are 70 such routes; while on a common chessboard, where m = n = 8, there are no less than 12870 such routes. A similar theorem can be enunciated for a parallelopiped. Another problem of a somewhat similar type is the determination of the number of closed routes through mn points arranged in m rows and n columns, following the lines of the quadrilateral net-work, and passing once and only once through each point* . Permutation Problems. As other simple illustrations of the very large number of ways in which combinations of even a few things can be arranged, I may note that as many as 19, 958400 distinct skeleton cubes can be formed with twelve differently coloured rods of equal length† ; again there are 3, 979614, 965760 ways of arranging a set of twenty-eight dominoes (i.e. a set from double zero to double six) in a line, with like numbers in contact‡ ; while there are no less than 53644, 737765, 488792, 839237, 440000 possible different distributions of hands at whist with a pack of fifty-two cards§ . Voting Problems. Here is a simple example on combinations dealing with the cumulative vote as affecting the representation of a minority. If there are p electors each having r votes of which not more than s may be given to one candidate, and n men are to be elected, then the least number of supporters who can secure the election of a candidate must exceed pr/(ns + r). Exploration Problems. Another common question is concerned with the maximum distance into a desert which could be reached from a frontier settlement by the aid of a party of n explorers, each capable of carrying provisions that would last one man for a days. The answer is that the man who reaches the greatest distance will occupy na/(n + 1) days before he returns to his starting point. If in the course of their journey they may make depôts, the longest

possible journey will occupy 1 2 a(1 + 1 2 + 1 3 + · · · + 1/n) days. Further extensions by the use of horses and cycles will suggest themselves. Here I conclude my account of such of these easy problems on * See C.F. Sainte-Marie in L'Intermédiaire des mathématiciens, Paris, vol. xi, March, 1904, pp. 86–88. † Mathematical Tripos, Cambridge, Part I, 1894. ‡ Reiss in Annali di matematica, Milan, November, 1871, vol. v, pp. 63–120. § That is (52!)/(13!)4 . CH. I] BACHET'S WEIGHTS PROBLEM. 27 numbers or elementary algebra as seemed worth reproducing. It will be noticed that the majority of them either are due to Bachet or were collected by him in his classical Problèmes; but it should be added that besides the questions I have mentioned he enunciated, even if he did not always solve, some other problems of greater interest. One instance will suffice. Bachet's Weights Problem* . Among the more difficult problems proposed by Bachet was the determination of the least number of weights which would serve to weigh any integral number of pounds from 1 lb. to 40 lbs. inclusive. Bachet gave two solutions: namely, (i) the series of weights of 1, 2, 4, 8, 16, and 32 lbs.; (ii) the series of weights of 1, 3, 9, and 27 lbs. If the weights may be placed in only one of the scale-pans, the first series gives a solution, as had been pointed out in 1556 by Tartaglia† . Bachet, however, assumed that any weight might be placed in either of the scale-pans. In this case the second series gives the least possible number of weights required. His reasoning is as follows. To weigh 1 lb. we must have a 1 lb. weight. To weigh 2 lbs. we must have in addition either a 2 lb. weight or a 3 lb. weight; but, if we are confined to only one new weight (in addition to the 1 lb. we have got already), then with no weight greater than 3 lbs. could we weigh 2 lbs.: if we use a 2 lb. weight we then can weigh 1 lb., 2 lbs., and 3 lbs., but if we use a 3 lb. weight we then can weigh 1 lb., (3 − 1) lbs., 3 lbs., and (3 + 1) lbs.; hence a 3 lb. weight is preferable. Similarly, to enable us to weigh 5 lbs. we must have another weight not greater than 9 lbs., and a weight of 9 lbs. enables us to weigh every weight from 1 lb. to 13 lbs.; hence it is the best to choose. The next weight required will be 2(1+3+9)+1 lb., that is, will be 27 lbs.; and this enables us to weigh from 1 lb. to 40 lbs. Thus only four weights are required, namely, 1 lb., 3 lbs., 3 2 lbs., and 3 3 lbs. We can show similarly that the series of weights of 1, 3, 3 2 , . . . , 3 n−1 lbs. will enable us to weigh any integral number of pounds from 1 lb. to (1 + 3 + 32 + · · · 3 n−1) lbs., that is, to 1 2 (3n − 1) lbs. This is the least number with which the problem can be effected. To determine the arrangement of the weights to weigh any given mass we have only to express the number of pounds in it as a number in the ternary scale of notation, except that in finding the successive * Bachet, Appendix, problem v, p. 215. † Trattato de' numeri e misure, Venice, 1556, vol. ii, bk. i, chap. xvi, art. 32. 28 ARITHMETICAL RECREATIONS. [CH. I digits we must make every remainder either 0, 1, or −1: to effect this a remainder 2 must be written as 3 − 1, that is, the quotient must be increased by unity, in which case the remainder is −1. This is explained in most text-books on algebra.

Bachet's argument does not prove that his result is unique or that it gives the least possible number of weights required. These omissions have been supplied by Major MacMahon, who has discussed the far more difficult problem (of which Bachet's is a particular case) of the determination of all possible sets of weights, not necessarily unequal, which enable us to weigh any integral number of pounds from 1 to n inclusive, (i) when the weights may be placed in only one scale-pan, and (ii) when any weight may be placed in either scale-pan. He has investigated also the modifications of the results which are necessary when we impose either or both of the further conditions (a) that no other weighings are to be possible, and (b) that each weighing is to be possible in only one way, that is, is to be unique* . The method for case (i) consists in resolving 1 + x + x 2 + · · · + x n into factors, each factor being of the form 1 + x a + x 2a + · · · + x ma; the number of solutions depends on the composite character of n + 1. The method for case (ii) consists in resolving the expression x −n+x −n+1+· · · + x −1 + 1 + x + · · · + x n−1 + x n into factors, each factor being of the form x −ma + · · · + x −a + 1 + x a + · · · + x ma; the number of solutions depends on the composite character of 2n + 1. Bachet's problem falls under case (ii), n = 40. MacMahon's analysis shows that there are eight such ways of factorizing x −40 + x −39 + · · · + 1 + x 39 + x 40. First, there is the expression itself in which a = 1, m = 40. Second, the expression is equal to (1 − x 81)/x40(1 − x), which can be resolved into the product of (1 − x 3)/x(1 − x) and (1 − x 81)/x39(1 − x 3); hence it can be resolved into two factors of the form given above, in one of which a = 1, m = 1, and in the other, a = 3, m = 13. Third, similarly, it can be resolved into two such factors, in one of which a = 1, m = 4, and in the other a = 9, m = 4. Fourth, it can be resolved into three such factors, in one of which a = 1, m = 1, in another a = 3, m = 1, and in the other, a = 9, m = 4. Fifth, it can be resolved into two such factors, in one of which a = 1, m = 13, * See his article in the Quarterly Journal of Mathematics, 1886, vol. xxi, pp. 367–373. An account of the method is given in Nature, Dec. 4, 1890, vol. xlii, pp. 113–114. CH. I] PROBLEMS IN HIGHER ARITHMETIC. 29 and in the other a = 27, m = 1. Sixth, it can be resolved into three such factors, in one of which a = 1, m = 1, in another a = 3, m = 4, and in the other a = 27, m = 1. Seventh, it can be resolved into three such factors, in one of which a = 1, m = 4, in another a = 9, m = 1, and in the other a = 27, m = 1. Eighth, it can be resolved into four such factors, in one of which a = 1, m = 1, in another a = 3, m = 1, in another a = 9, m = 1, and in the other a = 27, m = 1. These results show that there are eight possible sets of weights with which any integral number of pounds from 1 to 40 can be weighed subject to the conditions (ii), (a), and (b). If we denote p weights each equal to w by w p , these eight solutions are 1 40; 1, 3 13; 1 4 , 9 4 ; 1, 3, 9 4 ; 1 13 , 27; 1, 3 4 , 27; 1 4 , 9, 27; 1, 3, 9, 27. The last of these is Bachet's solution: not only is it that in which the least number of weights are employed, but it is also the only unique one in which all the weights are unequal. Problems in Higher Arithmetic. At the

commencement of this chapter I alluded to the special interest which many mathematicians find in the theorems of higher arithmetic: such, for example, as that every prime of the form 4n + 1 and every power of it is expressible as the sum of two squares* , and the first and second powers can be expressed thus in only one way. For instance, 13 = 32 + 22 , 132 = 122 + 52 , 133 = 462 + 92 , and so on. Similarly 41 = 52 + 42 , 412 = 402 + 92 , 413 = 2362 + 1152 , and so on. Propositions such as the one just quoted may be found in textbooks on the theory of numbers and therefore lie outside the limits of this work, but there are one or two questions in higher arithmetic involving points not yet quite cleared up which may find a place here. Primes. The first of these is concerned with the possibility of determining readily whether a given number is prime or not. Euler and Gauss attached great importance to this problem, but failed to establish any conclusive test. It would seem, however, that Fermat possessed some means of finding from its form whether a given number (at any rate if one of certain known forms) was prime or not. Thus, in answer to Mersenne who asked if he could tell without much trouble whether the number 100895, 598169 was a prime, Fermat wrote on April 7, 1643, that it was the product of 898423 and 112303, both of which were * Fermat's Diophantus, Toulouse, 1670, bk. iii, prop. 22, p. 127; or Brassinne's Précis, Paris, 1853, p. 65. 30 ARITHMETICAL RECREATIONS. [CH. I primes. I have indicated elsewhere one way by which this result can be found, and Mr F.W. Laurence has indicated another which may have been that used by Fermat in this particular case. Mersenne's Numbers* . Another illustration, confirmatory of the opinion that Fermat or some of his contemporaries had a test by which it was possible to find out whether certain numbers were prime, may be drawn from Mersenne's Cogitata Physico-Mathematica which was published in 1644. In the preface to that work it is asserted that in order that 2 p − 1 may be prime, the only values of p, not greater than 257, which are possible are 1, 2, 3, 5, 7, 13, 17, 19, 31, 67, 127, and 257: I conjecture that the number 67 is a misprint for 61. With this correction the statement appears to be true, and it has been verified for all except nineteen values of p: namely, 71, 101, 103, 107, 109, 137, 139, 149, 157, 163, 167, 173, 181, 193, 199, 227, 229, 241, and 257. Of these values, Mersenne asserted that p = 257 makes 2 p − 1 a prime, and that the other values make 2 p − 1 a composite number. The demonstrations for the cases when p = 89, 127 have not been published; nor have the actual factors of 2 p − 1 when p = 89 been as yet determined: the discovery of these factors may be commended to those interested in the theory of numbers. Mersenne's result could not be obtained empirically, and it is impossible to suppose that it was worked out for every case; hence it would seem that whoever first enunciated it was acquainted with certain theorems in higher arithmetic which have not been re-discovered. Perfect Numbers† . The theory of perfect numbers depends directly on that of Mersenne's Numbers. A number is said to be perfect if it is

equal to the sum of all its integral subdivisors. Thus the subdivisors of 6 are 1, 2, and 3; the sum of these is equal to 6; hence 6 is a perfect number. It is probable that all perfect numbers are included in the formula 2 p−1 (2p − 1), where 2 p − 1 is a prime. Euclid proved that any number of this form is perfect; Euler showed that the formula includes all even perfect numbers; and there is reason to believe—though a rigid demonstration is wanting—that an odd number cannot be perfect. If * For references, see chapter ix below. † On the theory of perfect numbers, see bibliographical references by H. Brocard, L'Intermédiaire des mathématiciens, Paris, 1895, vol. ii, pp. 52–54; and 1905, vol. xii, p. 19. CH. I] GOLDBACH'S THEOREM. 31 we assume that the last of these statements is true, then every perfect number is of the above form. It is easy to establish that every number included in this formula (except when p = 2) is congruent to unity to the modulus 9, that is, when divided by 9 leaves a remainder 1; also that either the last digit is a 6 or the last two digits are 28. Thus, if p = 2, 3, 5, 7, 13, 17, 19, 31, 61, then by Mersenne's rule the corresponding values of 2 p − 1 are prime; they are 3, 7, 31, 127, 8191, 131071, 524287, 2147483647, 2305843009213693951; and the corresponding perfect numbers are 6, 28, 496, 8128, 33550336, 8589869056, 137438691328, 2305843008139952128, and 2658455991569831744654692615953842176. Goldbach's Theorem. Another interesting problem in higher arithmetic is the question whether there are any even integers which cannot be expressed as a sum of two primes. Probably there are none. The expression of all even1 integers not greater than 5000 in the form of a sum of two primes has been effected* , but a general demonstration that all even integers can be so expressed is wanting. Lagrange's Theorem† . Another theorem in higher arithmetic which, as far as I know, is still unsolved, is to the effect that every prime of the form 4n−1 is the sum of a prime of the form 4n+ 1 and of double a prime of the form 4n + 1; for example, 23 = 13 + 2 × 5. Lagrange, however, added that it was only by induction that he arrived at the result. Fermat's Theorem on Binary Powers. Fermat enriched mathematics with a multitude of new propositions. With two exceptions all these have been proved subsequently to be true. The first of these exceptions is his theorem on binary powers, in which he asserted that all numbers of the form 2 m + 1, where m = 2n , are primes‡ , but he added that, though he was convinced of the truth of this proposition, he could not obtain a valid demonstration. * Transactions of the Halle Academy (Naturforschung), vol. lxxii, Halle, 1897, pp. 5–214: see also L'Intermédiaire des mathématiciens, 1903, vol. x, and 1904, vol. xi. † Nouveaux Mémoires de l'Académie Royale des Sciences, Berlin, 1775, p. 356. ‡ Letter of Oct. 18, 1640, Opera, Toulouse, 1679, p. 162: or Brassinne's Précis, p. 143. 1. 'even' inserted as per errata sheet 32 ARITHMETICAL RECREATIONS. [CH. I It may be shown that 2 m + 1 is composite if m is not a power of 2, but of course it does not follow that 2 m + 1 is a prime if m is a power of 2. As a matter of fact the

theorem is not true. In 1732 Euler* showed that if n = 5 the formula gives 4294, 967297, which is equal to 641×6, 700417: curiously enough, these factors can be deduced at once from Fermat's remark on the possible factors of numbers of the form 2 m ± 1, from which it may be shown that the prime factors (if any) of 2 32 + 1 must be primes of the form 64n + 1. During the last thirty years it has been shown† that the resulting numbers are composite when n = 6, 9, 11, 12, 18, 23, 36, and 38: the two last numbers contain many thousands of millions of digits. I believe that Eisenstein asserted that the number of primes of the form 2 m + 1, where m = 2n , is infinite: the proof has not been published, but perhaps it might throw some light on the general theory. Fermat's Last Theorem. I pass now to the only other assertion made by Fermat which has not been proved hitherto. This, which is sometimes known as Fermat's Last Theorem, is to the effect‡ that no integral values of x, y, z can be found to satisfy the equation x n+y n = z n , if n is an integer greater than 2. This proposition has acquired extraordinary celebrity from the fact that no general demonstration of it has been given, but there is no reason to doubt that it is true. Fermat seems to have discovered its truth first§ for the case n = 3, and then for the case n = 4. His proof for the former of these cases is lost, but that for the latter is extant‖ , and a similar proof for the case of n = 3 was given by Euler¶ . These proofs depend upon showing that, if three integral values of x, y, z can be found which satisfy the equation, * Commentarii Academiae Scientiarum Petropolitanae, St Petersburg, 1738, vol. vi, p. 104; see also Novi Comm. Acad. Sci. Petrop., St Petersburg, 1764, vol. ix, p. 101: or Commentationes Arithmeticae Collectae, St Petersburg, 1849, vol. i, pp. 2, 357. † For the factors and bibliographical references, see the memoir by A.J.C. Cunningham and A.E. Western, Transactions of the London Mathematical Society, May 14, 1903, series 2, vol. i, p. 175. ‡ Fermat's enunciation will be found in his edition of Diophantus, Toulouse, 1670, bk. ii, qu. 8, p. 61; or Brassinne's Précis, Paris, 1853, p. 53. For bibliographical references, see L'Intermédiaire des mathématiciens, 1905, vol. xii, pp. 11, 12. § See a letter from Fermat quoted in my History of Mathematics, London, chapter xv. ‖ Fermat's Diophantus, note on p. 339; or Brassinne's Précis, p. 127. ¶ Euler's Algebra (English trans. 1797), vol. ii, chap. xv, p. 247. CH. I] FERMAT'S LAST THEOREM. 33 then it will be possible to find three other and smaller integers which also satisfy it: in this way finally we show that the equation must be satisfied by three values which obviously do not satisfy it. Thus no integral solution is possible. It would seem that this method is inapplicable except when n = 3 and n = 4. Fermat's discovery of the general theorem was made later. An easy demonstration can be given on the assumption that every number can be resolved into prime (complex) factors in one and only one way. That assumption has been made by some writers, but it is not universally true. It is possible that Fermat made some such supposition, though it is perhaps more probable that he discovered a rigorous

demonstration. At any rate he asserts definitely that he had a valid proof— demonstratio mirabilis sane—and the fact that every other theorem on the subject which he stated he had proved has been subsequently verified must weigh strongly in his favour; especially as in making the one statement in his writings which is not correct he was scrupulously careful to add that he could not obtain a satisfactory demonstration of it. It must be remembered that Fermat was a mathematician of quite the first rank who had made a special study of the theory of numbers. That subject is in itself one of peculiar interest and elegance, but its conclusions have little practical importance, and since his time it has been discussed by only a few mathematicians, while even of them not many have made it their chief study. This is the explanation of the fact that it took more than a century before some of the simpler results which Fermat had enunciated were proved, and thus it is not surprising that a proof of the theorem which he succeeded in establishing only towards the close of his life should involve great difficulties. In 1823 Legendre* obtained a proof for the case of n = 5; in 1832 Lejeune Dirichlet† gave one for n = 14, and in 1840 Lamé and Lebesgue‡ gave proofs for n = 7. The proposition appears to be true universally, and in 1849 Kummer§ , by means of ideal primes, proved it to be so for all numbers except those (if any) which satisfy three conditions. It is not known * Reprinted in his Théorie des Nombres, Paris, 1830, vol. ii, pp. 361–368: see also pp. 5, 6. † Crelle's Journal, 1832, vol. ix, pp. 390–393. ‡ Liouville's Journal, 1841, vol. v, pp. 195–215, 276–9, 348–9. § References to Kummer's Memoirs are given in Smith's Report to the British Association on the Theory of Numbers, London, 1860. 34 ARITHMETICAL RECREATIONS. [CH. I whether any number can be found to satisfy these conditions, but it seems unlikely, and it has been shown that there is no number less than 100 which does so. The proof is complicated and difficult, and there can be little doubt is based on considerations unknown to Fermat. I may add that to prove the truth of the proposition when n is greater than 4, it obviously is sufficient to confine ourselves to cases where n is a prime, and the first step in Kummer's demonstration is to show that in such cases one of the numbers x, y, z must be divisible by n. Naturally there has been much speculation as to how Fermat arrived at the result. The modern treatment of higher arithmetic is founded on the special notation and processes introduced by Gauss, who pointed out that the theory of discrete magnitude is essentially different from that of continuous magnitude, but until the end of the last century the theory of numbers was treated as a branch of algebra, and such proofs by Fermat as are extant involve nothing more than elementary geometry and algebra, and indeed some of his arguments do not involve any symbols. This has led some writers to think that Fermat used none but elementary algebraic methods. This may be so, but the following remark, which I believe is not generally known, rather points to the opposite conclusion. He had proposed, as a problem to the English mathematicians, to show that there was only

one integral solution of the equation x 2 + 2 = y 3 : the solution evidently being x = 5, y = 3. On this he has a note* to the effect that there was no difficulty in finding a solution in rational fractions, but that he had discovered an entirely new method—sane pulcherrima et subtilissima—which enabled him to solve such questions in integers. It was his intention to write a work† on his researches in the theory of numbers, but it was never completed, and we know but little of his methods of analysis. I venture however to add my private suspicion that continued fractions played a not unimportant part in his researches, and as strengthening this conjecture I may note that some of his more recondite results—such as the theorem that a prime of the form 4n+ 1 is expressible as the sum of two squares—may be established with comparative ease by properties of such fractions. * Fermat's Diophantus, bk. vi, prop. 19, p. 320; or Brassinne's Précis, p. 122. † Fermat's Diophantus, bk. iv, prop. 31, p. 181; or Brassinne's Précis, p. 82. CHAPTER II. SOME GEOMETRICAL QUESTIONS. In this chapter I propose to enumerate certain geometrical questions the discussion of which will not involve necessarily any considerable use of algebra or arithmetic. Unluckily no writer like Bachet has collected and classified problems of this kind, and I take the following instances from my note-books with the feeling that they represent the subject but imperfectly. The first part of the chapter is devoted to questions which are of the nature of formal propositions: the last part contains a description of various trivial puzzles and games, which the older writers would have termed geometrical, but which the reader of to-day may omit without loss. In accordance with the rule I laid down for myself in the preface, I exclude the detailed discussion of theorems which involve advanced mathematics. Moreover (with one possible exception) I exclude also any mention of the numerous geometrical paradoxes which depend merely on the inability of the eye to compare correctly the dimensions of figures when their relative position is changed. This apparent deception does not involve the conscious reasoning powers, but rests on the inaccurate interpretation by the mind of the sensations derived through the eyes, and I do not consider such paradoxes as coming within the domain of mathematics. Geometrical Fallacies. Most educated Englishmen are acquainted with the series of logical propositions in geometry associated 35 36 SOME GEOMETRICAL QUESTIONS. [CH. II with the name of Euclid, but it is not known so generally that these propositions were supplemented originally by certain exercises. Of such exercises Euclid issued three series: two containing easy theorems or problems, and the third consisting of geometrical fallacies, the errors in which the student was required to find. The collection of fallacies prepared by Euclid is lost, and tradition has not preserved any record as to the nature of the erroneous reasoning or conclusions; but, as an illustration of such questions, I append two or three demonstrations, leading to obviously impossible results, which perhaps may amuse any one to whom they are new. I leave the discovery of the errors to the ingenuity

of my readers. First Fallacy. To prove that a right angle is equal to an angle which is greater than a right angle. Let ABCD be a rectangle. From A draw a line AE outside the rectangle, equal to AB or DC and making an acute angle with AB, as indicated in the diagram. Bisect CB in A C B D E O H K H, and through H draw HO at right angles to CB. Bisect CE in K, and through K draw KO at right angles to CE. Since CB and CE are not parallel the lines HO and KO will meet (say) at O. Join OA, OE, OC, and OD. The triangles ODC and OAE are equal in all respects. For, since KO bisects CE and is perpendicular to it, we have OC = OE. Similarly, since HO bisects CB and DA and is perpendicular to them, we have OD = OA. Also, by construction, DC = AE. Therefore the three sides of the triangle ODC are equal respectively to the three sides of CH. II] GEOMETRICAL FALLACIES. 37 the triangle OAE. Hence, by Euc. i. 8, the triangles are equal; and therefore the angle ODC is equal to the angle OAE. Again, since HO bisects DA and is perpendicular to it, we have the angle ODA equal to the angle OAD. Hence the angle ADC (which is the difference of ODC and ODA) is equal to the angle DAE (which is the difference of OAE and OAD). But ADC is a right angle, and DAE is necessarily greater than a right angle. Thus the result is impossible. Second Fallacy* . To prove that a part of a line is equal to the whole line. Let ABC be a triangle; and, to fix our ideas, let us suppose that the triangle is scalene, that the angle B is acute, and that the B C A D E angle A is greater than the angle C. From A draw AD making the angle BAD equal to the angle C, and cutting BC in D. From A draw AE perpendicular to BC. The triangles ABC, ABD are equiangular; hence, by Euc. vi. 19, △ABC : △ABD = AC2 : AD2 . Also the triangles ABC, ABD are of equal altitude: hence, by Euc. vi. 1, △ABC : △ABD = BC : BD , ∴ AC2 : AD2 = BC : BD . ∴ AC2 BC = AD2 BD . * See a note by M. Coccoz in L'Illustration, Paris, Jan. 12, 1895. 38 SOME GEOMETRICAL QUESTIONS. [CH. II Hence, by Euc. ii. 13, AB2 + BC2 − 2BC · BE BC = AB2 + BD2 − 2BD · BE BD . ∴ AB2 BC + BC − 2BE = AB2 BD + BD − 2BE . ∴ AB2 BC − BD = AB2 BD − BC . ∴ AB2 − BC · BD BC = AB2 − BC · BD BD . ∴ BC = BD , a result which is impossible. Third Fallacy. To prove that every triangle is isosceles. Let ABC be any triangle. Bisect BC in D, and through D draw DO perpendicular to BC. Bisect the angle BAC by AO. First. If DO and AO do not meet, then they are parallel. Therefore AO is at right angles to BC. Therefore AB = AC. Second. If DO and AO meet, let them meet in O. Draw OE perpendicular to AC. Draw OF perpendicular to AB. Join OB, OC. A B D C O E F Let us begin by taking the case where O is inside the triangle, in which case E falls on AC and F on1 AB. The triangles AOF and AOE are equal, since the side AO is common, angle OAF = angle OAE, and angle OF A = angle OEA. Hence AF = AE. Also, the triangles BOF and COE are equal. For since OD bisects BC at right angles, we have OB = OC; also, since the triangles AOF and AOE are equal, we have OF = OE; lastly, the angles at F and E are right angles. Therefore, by Euc. i. 47 and i. 8, the triangles BOF and COE are equal. Hence F B = EC. Therefore AF + F B = AE + EC, that is, AB = AC. The same demonstration will cover the case where DO

and AO meet at D, as also the case where they meet outside BC but so near it that E and F fall on AC and AB and not on AC and AB produced. 1. corrected BC to AB CH. II] GEOMETRICAL FALLACIES. 39 Next take the case where DO and AO meet outside the triangle, and E and F fall on AC and AB produced. Draw OE perpendicular to AC produced. Draw OF perpendicular to AB produced. Join OB, OC. A B D C O E F Following the same argument as before, from the equality of the triangles AOF and AOE, we obtain AF = AE; and, from the equality of the triangles BOF and COE, we obtain F B = EC. Therefore AF − F B = AE − EC, that is, AB = AC. Thus in all cases, whether or not DO and AO meet, and whether they meet inside or outside the triangle, we have AB = AC: and therefore every triangle is isosceles, a result which is impossible. Fourth Fallacy. I am indebted to Captain Turton for the following ingenious fallacy; it appeared for the first time in the third edition of this work. On the hypothenuse, BC, of an isosceles right-angled triangle, DBC, describe an equilateral triangle ABC, the vertex A being on the same side of the base as D is. On CA take a point H so that CH = CD. Bisect BD in K. Join HK and let it cut CB (produced) in L. Join DL. Bisect DL at M, and through M draw MO perpendicular to DL. Bisect HL at N, and through N draw NO perpendicular to HL. Since DL and HL intersect, therefore MO and NO will also intersect; moreover, since BDC is a right angle, MO and NO both slope away from DC and therefore they will meet on the side of DL remote from A. Join OC, OD, OH, OL. 40 SOME GEOMETRICAL QUESTIONS. [CH. II The triangles OMD and OML are equal, hence OD = OL. Similarly the triangles ONL and ONH are equal, hence OL = OH. Therefore OD = OH. Now in the triangles OCD and OCH, we have OD = OH, CD = CH (by construction), and OC common, hence (by Euc. i. 8) the angle OCD is equal to the angle OCH, which is absurd. Fifth Fallacy* . To prove that, if two opposite sides of a quadrilateral are equal, the other two sides must be parallel. Let ABCD be a quadrilateral such that AB is equal to DC. Bisect AD in M, and through M draw MO at right angles to AD. Bisect BC in N, and draw NO at right angles to BC. If MO and NO are parallel, then AD and BC (which are at right angles to them) are also parallel. If MO and NO are not parallel, let them meet in O; then O must be either inside the quadrilateral as in the left-hand diagram or outside A B C D N M O A B C D N M O the quadrilateral as in the right-hand diagram. Join OA, OB, OC, OD. Since OM bisects AD and is perpendicular to it, we have OA = OD, and the angle OAM equal to the angle ODM. Similarly OB = OC, and the angle OBN equal to the angle OCN. Also by hypothesis AB = DC, hence, by Euc. i. 8, the triangles OAB and ODC are equal in all respects, and therefore the angle AOB is equal to the angle DOC. Hence in the left-hand diagram the sum of the angles AOM, AOB is equal to the sum of the angles DOM, DOC; and in the right-hand * Mathesis, October, 1893, series 2, vol. iii, p. 224. CH. II] GEOMETRICAL FALLACIES. 41 diagram the difference of the angles AOM, AOB is equal to the difference of the angles DOM, DOC; and therefore in both cases the angle MOB is equal to the angle

MOC, i.e. OM (or OM produced) bisects the angle BOC. But the angle NOB is equal to the angle NOC, i.e. ON bisects the angle BOC; hence OM and ON coincide in direction. Therefore AD and BC, which are perpendicular to this direction, must be parallel. This result is not universally true, and the above demonstration contains a flaw. Sixth Fallacy. The following argument is taken from a text-book on electricity, published in 1889 by two distinguished mathematicians, in which it was presented as valid. A given vector OP of length l can be resolved in an infinite number of ways into two vectors OM, MP, of lengths l ′ , l ″, and we can make l ′/l″ have any value we please from nothing to infinity. Suppose that the system is referred to rectangular axes Ox, Oy; and that OP, OM, MP make respectively angles θ, θ ′ , θ ″ with Ox. Hence, by projection on Oy and on Ox, we have lsin θ = l ′ sin θ ′ + l ″ sin θ ″ , l cos θ = l ′ cos θ ′ + l ″ cos θ ″ . Therefore tan θ = n sin θ ′ + sin θ ″ n cos θ ′ + cos θ ″ , where n = l ′/l″. This result is true whatever be the value of n. But n may have any value (ex. gr. n = ∞, or n = 0), hence tan θ = tan θ ′ = tan θ ″, which obviously is impossible. Seventh Fallacy. Here is a fallacious investigation, to which Mr Chartres first called my attention, of the value of π: it is founded on well-known quadratures. The area of the semi-ellipse bounded by the minor axis is (in the usual notation) equal to 1 2 πab. If the centre is moved off to an indefinitely great distance along the major axis, the ellipse degenerates into a parabola, and therefore in this particular limiting position the area is equal to two-thirds of the circumscribing rectangle. But the first result is true whatever be the dimensions of the curve. ∴ 1 2 πab = 2 3 a × 2b, ∴ π = 8/3, a result which is obviously untrue. 42 SOME GEOMETRICAL QUESTIONS. [CH. II Geometrical Paradoxes. To the above examples I may add the following questions, which, though not exactly fallacious, lead to results which at a hasty glance appear impossible. First Paradox. The first is a problem, sent to me by Mr Renton, to rotate a plane lamina (say, for instance, a sheet of paper) through four right angles so that the effect is equivalent to turning it through only one right angle. If it is desired that the effect shall be equivalent to turning it through a right angle about a point O, the solution is as follows. Describe on the lamina a square OABC. Rotate the lamina successively through two right angles about the diagonal OB as axis and through two right angles about the side OA as axis, and the required result will be attained. Second Paradox. As in arithmetic, so in geometry, the theory of probability lends itself to numerous paradoxes. Here is a very simple illustration. A stick is broken at random into three pieces. It is possible to put them together into the shape of a triangle provided the length of the longest piece is less than the sum of the other two pieces (cf. Euc. i. 20), that is, provided the length of the longest piece is less than half the length of the stick. But the probability that a fragment of a stick shall be half the original length of the stick is 1 2 . Hence the probability that a triangle can be constructed out of the three pieces into which the stick is broken would appear to be 1 2 . This is not true, for actually the

probability is 1 4 . Third Paradox. The following example illustrates how easily the eye may be deceived in demonstrations obtained by actually dissecting the figures and re-arranging the parts. In fact proofs by superposition should be regarded with considerable distrust unless they are supplemented by mathematical reasoning. The well-known proofs of the propositions Euclid i. 32 and Euclid i. 47 can be so supplemented and are valid. On the other hand, as an illustration of how deceptive a nonmathematical proof may be, I here mention the familiar paradox that a square of paper, subdivided like a chessboard into 64 small squares, can be cut into four pieces which being put together form a figure containing 65 such small squares* . This is effected by cutting the original * I do not know who discovered this paradox. It is given in various modern books, but I cannot find an earlier reference to it than one by Prof. G.H. Darwin, Messenger of Mathematics, 1877, vol. vi, p. 87. CH. II] GEOMETRICAL PARADOXES. 43 A B square into four pieces in the manner indicated by the thick lines in the first figure. If these four pieces are put together in the shape of a rectangle in the way shown in the second figure it will appear as if this rectangle contains 65 of the small squares. This phenomenon, which in my experience non-mathematicians find perplexing, is due to the fact that the edges of the four pieces of paper, which in the second figure lie along the diagonal AB, do not coincide exactly in direction. In reality they include a small lozenge or diamond-shaped figure, whose area is equal to that of one of the 64 small squares in the original square, but whose length AB is much greater than its breadth. The diagrams show that the angle between the two sides of this lozenge which meet at A is tan−1 2 5 − tan−1 3 8 , that is, is tan−1 1 46 , which is less than 1 1 4 ◦ . To enable the eye to distinguish so small an angle as this the dividing lines in the first figure would have to be cut with extreme accuracy and the pieces placed together with great care. The paradox depends upon the relation 5 × 13 − 8 2 = 1. Similar results can be obtained from the formulae 13 × 34 − 212 = 1, 34×89−552 = 1,. . . ; or from the formulae 5 2−3×8 = 1, 132−8×21 = 1, 342 − 21 × 55 = 1,. . . . These numbers are obtained by finding convergents to the continued fraction 1 + 1 1 + 1 1 + 1 1 + · · · . A similar paradox for a square of 17 cells, by which it was shown that 289 was equal to 288, was alluded to by Ozanam* who gave also the diagram for dividing a rectangle of 11 by 3 into two rectangles whose dimensions appear to be 5 by 4 and 7 by 2. * Ozanam, 1803 edition, vol. i, p. 299. 44 SOME GEOMETRICAL QUESTIONS. [CH. II Turton's Seventy-Seven Puzzle. A far better dissection puzzle was invented by Captain Turton. In this a piece of cardboard, 11 inches by 7 inches, subdivided into 77 small equal squares, each 1 inch by 1 inch, can be cut up and re-arranged so as to give 78 such equal squares, each 1 inch by 1 inch, of which 77 are arranged in a rectangle of the same dimensions as the original rectangle from one side of which projects a small additional square. The construction is ingenious, but cannot be described without the use of a model. The trick consists in

utilizing the fact that cardboard has a sensible thickness. Hence the edges of the cuts can be bevelled, but in the model the bevelling is so slight as to be imperceptible save on a very close scrutiny. The play thus given in fitting the pieces together permits the apparent production of an additional square. Colouring Maps. I proceed next to mention the geometrical proposition that not more than four colours are necessary in order to colour a map of a country (divided into districts) in such a way that no two contiguous districts shall be of the same colour. By contiguous districts are meant districts having a common line as part of their boundaries: districts which touch only at points are not contiguous in this sense. The problem was mentioned by A.F. Möbius* in his Lectures in 1840, but it was not until Francis Guthrie† communicated it to De Morgan about 1850 that attention was generally called to it: it is said that the fact had been familiar to practical map-makers for a long time previously. Through De Morgan the proposition became generally known; and in 1878 Cayley‡ recalled attention to it by stating that he did not know of any rigorous proof of it. Probably the following argument, though not a formal demonstration, will satisfy the reader that the result is true. Let A, B, C be three contiguous districts, and let X be any other district contiguous with all of them. Then X must lie either wholly outside the external boundary of the area ABC or wholly inside the internal boundary, that is, it must occupy a position either like X or * Leipzig Transactions (Math.-phys. Classe), 1885, vol. xxxvii, pp. 1–6. † Proceedings of the Royal Society of Edinburgh, July 19, 1880, vol. x, p. 728. ‡ Proceedings of the London Mathematical Society, 1878, vol. ix, p. 148, and Proceedings of the Royal Geographical Society, 1879, N.S., vol. i, p. 259. CH. II] THE FOUR-COLOUR THEOREM.. 45 like X’ . In either case every remaining occupied area in the figure is enclosed by the boundaries of not more than three districts: hence there is no possible way of drawing another area Y which shall be contiguous with A, B, C, and X. In other words, it is possible to draw on a plane four areas which are contiguous, but it is not possible to draw five such areas. If A, B, C are not contiguous, each with the other, or if X is not contiguous with A, B, and C, it is not necessary to colour them all differently, and thus the most unfavourable case is that already treated. Moreover any of the above areas may diminish to a point and finally disappear without affecting the argument. That we may require at least four colours is obvious from the diagram on this page, since in that case the areas A, B, C, and X would have to be coloured differently. A proof of the proposition involves difficulties of a high order, which as yet have baffled all attempts to surmount them. The argument by which the truth of the proposition was formerly supposed to be demonstrated was given by A.B. Kempe* in 1879, but * He sent his first demonstration across the Atlantic to the American Journal of Mathematics, 1879, vol. ii, pp. 193–200; but subsequently he communicated it 46 SOME GEOMETRICAL QUESTIONS. [CH. II there is a flaw* in it. In 1880, Tait published a solution† depending on the theorem that if a closed network of

lines joining an even number of points is such that three and only three lines meet at each point then three colours are sufficient to colour the lines in such a way that no two lines meeting at a point are of the same colour; a closed network being supposed to exclude the case where the lines can be divided into two groups between which there is but one connecting line. His deduction therefrom that four colours will suffice for a map was given in the last edition of this work. The demonstration appeared so straightforward that at first it was generally accepted, but it would seem that it too involves a fallacy‡ . The proof however leads to the interesting corollary that four colours may not suffice for a map drawn on a multiply-connected surface such as an anchor ring. Although a proof of the theorem is still wanting, no one has succeeded in constructing a plane map which requires more than four tints to colour it, and there is no reason to doubt the correctness of the statement that it is not necessary to have more than four colours for any plane map. The number of ways which such a map can be coloured with four tints has been also considered§ , but the results are not sufficiently interesting to require mention here. Physical Configuration of a Country. As I have been alluding to maps, I may here mention that the theory of the representation of the physical configuration of a country by means of lines drawn on a map was discussed, by Cayley and Clerk Maxwell‖ . They in simplified forms to the London Mathematical Society, Transactions, 1879, vol. x, pp. 229–231, and to Nature, Feb. 26, 1880, vol. xxi, pp. 399–400. * See articles by P.J. Heawood in the Quarterly Journal of Mathematics, London, 1890, vol. xxiv, pp. 332–338; and 1897, vol. xxxi, pp. 270–285. † Proceedings of the Royal Society of Edinburgh, July 19, 1880, vol. x, p. 729; and Philosophical Magazine, January, 1884, series 5, vol. xvii, p. 41. ‡ See J. Peterson of Copenhagen, L'Intermédiaire des mathématiciens, vol. v, 1898, pp. 225–227; and vol. vi, 1899, pp. 36–38. § See A.C. Dixon, Messenger of Mathematics, Cambridge, 1902–3, vol. xxxii, pp. 81–83. ‖ Cayley on 'Contour and Slope Lines,' Philosophical Magazine, London, October, 1859, series 4, vol. xviii, pp. 264–268; Collected Works, vol. iv, pp. 108–111. J. Clerk Maxwell on 'Hills and Dales,' Philosophical Magazine, December, 1870, series 4, vol. xl, pp. 421–427; Collected Works, vol. ii, pp. 233–240. CH. II] HILLS AND DALES.. 47 showed that a certain relation exists between the number of hills, dales, passes, &c. which can co-exist on the earth or on an island. I proceed to give a summary of their nomenclature and conclusions. All places whose heights above the mean sea level are equal are on the same level. The locus of such points on a map is indicated by a contour-line. Roughly speaking, an island is bounded by a contour-line. It is usual to draw the successive contour-lines on a map so that the difference between the heights of any two successive lines is the same, and thus the closer the contour-lines the steeper is the slope, but the heights are measured dynamically by the amount of work to be done to go from one level to the other and not by linear distances. A contour-line in general will be a closed curve. This curve

may enclose a region of elevation: if two such regions meet at a point, that point will be a crunode (i.e. a real double point) on the contour-line through it, and such a point is called a pass. The contour-line may enclose a region of depression: if two such regions meet at a point, that point will be a crunode on the contour-line through it, and such a point is called a fork or bar. As the heights of the corresponding level surfaces become greater, the areas of the regions of elevation become smaller, and at last become reduced to points: these points are the summits of the corresponding mountains. Similarly as the level surface sinks the regions of depression contract, and at last are reduced to points: these points are the bottoms (or immits) of the corresponding valleys. Lines drawn so as to be everywhere at right angles to the contourlines are called lines of slope. If we go up a line of slope generally we shall reach a summit, and if we go down such a line generally we shall reach a bottom: we may come however in particular cases either to a pass or to a fork. Districts whose lines of slope run to the same summit are hills. Those whose lines of slope run to the same bottom are dales. A watershed is the line of slope from a summit to a pass or a fork, and it separates two dales. A watercourse is the line of slope from a pass or a fork to a bottom, and it separates two hills. If n + 1 regions of elevation or of depression meet at a point, the point is a multiple point on the contour-line drawn through it; such a point is called a pass or a fork of the nth order, and must be counted as n separate passes (or forks). If one region of depression meets another in several places at once, one of these must be taken as a fork and the rest as passes. 48 SOME GEOMETRICAL QUESTIONS. [CH. II Having now a definite geographical terminology we can apply geometrical propositions to the subject. Let h be the number of hills on the earth (or an island), then there will be also h summits; let d be the number of dales, then there will be also d bottoms; let p be the whole number of passes, p1 that of single passes, p2 of double passes, and so on; let f be the whole number of forks, f1 that of single forks, f2 of double forks, and so on; let w be the number of watercourses, then there will be also w watersheds. Hence, by the theorems of Cauchy and Euler, h = 1 + p1 + 2p2 + · · · , d = 1 + f1 + 2f2 + · · · , and w = 2(p1 + f1) + 3(p2 + f2)) + · · · . The above results can be extended to the case of a multiplyconnected closed surface. Games. Leaving now the question of formal geometrical propositions, I proceed to enumerate a few games or puzzles which depend mainly on the relative position of things, but I postpone to chapter iv the discussion of such amusements of this kind as necessitate any considerable use of arithmetic or algebra. Some writers regard draughts, solitaire, chess and such like games as subjects for geometrical treatment in the same way as they treat dominoes, backgammon, and games with dice in connection with arithmetic: but these discussions require too many artificial assumptions to correspond with the games as actually played or to be interesting. The amusements to which I refer are of a more trivial description, and it is possible that a mathematician

may like to omit the remainder of the chapter. In some cases it is difficult to say whether they should be classified as mainly arithmetical or geometrical, but the point is of no importance. Statical Games of Position. Of the innumerable statical games involving geometry of position I shall mention only three or four. Three-in-a-row. First, I may mention the game of three-in-a-row, of which noughts and crosses, one form of merrilees, and go-bang are well-known examples. These games are played on a board—generally in the form of a square containing n 2 small squares or cells. The common practice is for one player to place a white counter or piece or to make CH. II] THREE-IN-A-ROW.. 49 a cross on each small square or cell which he occupies: his opponent similarly uses black counters or pieces or makes a nought on each square which he occupies. Whoever first gets three (or any other assigned number) of his pieces in three adjacent cells and in a straight line wins. The mathematical theory for a board of 9 cells has been worked out completely, and there is no difficulty in extending it to one of 16 cells: but the analysis is lengthy and not particularly interesting. Most of these games were known to the ancients* , and it is for that reason I mention them here. Three-in-a-row. Extension. I may, however, add an elegant but difficult extension which has not previously found its way, so far as I am aware, into any book of mathematical recreations. The problem is to place n counters on a plane so as to form as many rows as possible, each of which shall contain three and only three counters† . It is easy to arrange the counters in a number of rows equal to the integral part of 1 8 (n − 1)2 . This can be effected by the following construction. Let P be any point on a cubic. Let the tangent at P cut the curve again in Q. Let the tangent at Q cut the curve in A. Let P A cut the curve in B, QB cut it in C, P C cut it in D, QD cut it in E, and so on. Then the counters must be placed at the points P, Q, A, B, ... Thus 9 counters can be placed in 8 such rows; 10 counters in 10 rows; 15 counters in 24 rows; 81 counters in 800 rows; and so on. If however the point P is a pluperfect point of the nth order on the cubic, then Sylvester proved that the above construction gives a number of rows equal to the integral part of 1 6 (n − 1)(n − 2). Thus 9 counters can be arranged in 9 rows, which is a well-known and easy puzzle; 10 counters in 12 rows; 15 counters in 30 rows; and so on. Even this however is an inferior limit and may be exceeded—for instance, Sylvester stated that 9 counters can be placed in 10 rows, each containing three counters; I do not know how he placed them, but one way of so arranging them is by putting them at points whose coordinates are (2, 0), (2, 2), (2, 4), (4, 0), (4, 2), (4, 4), (0, 0), (3, 2), (6, 4); another way is by putting them at the points (0, 0), (0, 2), (0, 4), (2, 1), (2, 2), (2, 3), (4, 0), (4, 2), (4, 4); more generally, the angular points of * Becq de Fouquières, Les jeux des anciens, second edition, Paris, 1873, chap. xviii. † Educational Times Reprints, 1868, vol. viii, p. 106; Ibid. 1886, vol. xlv, pp. 127– 128. 50 SOME GEOMETRICAL QUESTIONS. [CH. II a regular hexagon and the three points of intersection of opposite sides form such a group, and therefore

any projection of that figure will give a solution. Thus at present it is not possible to say what is the maximum number of rows of three which can be formed from n counters placed on a plane. Extension to p-in-a-row. The problem mentioned above at once suggests the extension of placing n counters so as to form as many rows as possible, each of which shall contain p and only p counters. Such problems can be often solved immediately by placing at infinity the points of intersection of some of the lines, and (if it is so desired) subsequently projecting the diagram thus formed so as to bring these points to a finite distance. One instance of such a solution is given above. As easy examples I may give the arrangement of 16 counters in 15 rows1 , each containing 4 counters; and the arrangement of 19 counters in 10 rows, each containing 5 counters. A solution of the second of these problems can be obtained by placing counters at the 19 points of intersection of the 10 lines $x = \pm a$, $x = \pm b$, $y = \pm a$, $y = \pm b$, $y = \pm x$: of these points two are at infinity. The first problem I leave to the ingenuity of my readers. Tesselation. Another of these statical recreations is known as tesselation and consists in the formation of geometrical designs or mosaics by means of tesselated tiles. To those who have never looked into the matter it may be surprising that patterns formed by the use of square tiles (of which one-half bounded by a diagonal is white and the other half black) should be subject to mathematical analysis. In view of the discussion of this subject by Montucla* , Lucas† , and other writers it would be hard to refuse to call the formation of such patterns a mathematical amusement, but the treatment is (perhaps necessarily) somewhat empirical, and though there are some interesting puzzles of this kind, I do not propose to describe them here. * See Ozanam, 1803 edition, vol. i, p. 100; 1840 edition, p. 46. † Lucas, Récréations Mathématiques, Paris, 1882–3, vol. ii, part 4: hereafter I shall refer to this work by the name of the author. 1. ‘13’ corrected to ’15’ as per errata sheet CH. II] COLOUR-CUBE PROBLEM. 51 Sylvester* proposed a modified tesselation problem which consists in forming anallagmatic squares, that is, squares such that in every row and every column the number of changes of colour or the number of permanences is constant, the tiles used being square white tiles and square black tiles. If more than two colours are used, the problems become increasingly difficult. As a simple instance of this class of problems I may mention one, sent to me by a correspondent who termed it Cross-Fours, wherein sixteen square counters are used, the upper half of each being yellow, red, pink, or blue, and the lower half being gold, green, black, or white, no two counters being coloured alike. Such counters can be arranged in the form of a square so that in each vertical, horizontal, and diagonal line there shall be 8 colours and no more: they can be also arranged so that in each of these ten lines there shall be 6 colours and no more, or 5 colours and no more, or 4 colours and no more. Puzzles of this kind are but little known; they are however not uninstructive. Colour-Cube Problem. As an example of a recreation

analogous to tesselation I will mention the colour-cube problem; I select this partly because it is one of the most difficult of such puzzles, but chiefly because it has been subjected† to mathematical analysis. Stripped of mathematical technicalities the problem may be enunciated as follows. A cube has six faces, and if six colours are chosen we can paint each face with a different colour. By permuting the order of the colours we can obtain thirty such cubes, no two of which are coloured alike. Take any one of these cubes, K, then it is desired to select eight out of the remaining twenty-nine cubes, such that they can be arranged in the form of a cube (whose linear dimensions are double those of any of the separate cubes) coloured like the cube K, and placed so that where any two cubes touch each other the faces in contact are coloured alike. Only one collection of eight cubes can be found to satisfy these conditions. To pick out these eight cubes empirically would be out of the question, but the mathematical analysis enables us to select them by the following rule. Take any face of the cube K: it has four * Ex. gr. see the Educational Times Reprints, London, 1868, vol. x, pp. 74–76, 112: see also vol. xlv, p. 127; vol. lvi, pp. 97–99. † By Major MacMahon; an abstract of his paper, read before the London Mathematical Society on Feb. 9, 1893, was given in Nature, Feb. 23, 1893, vol. xlvii, p. 406. 52 SOME GEOMETRICAL QUESTIONS. [CH. II angles, and at each angle three colours meet. By permuting the colours cyclically we can obtain from each angle two other cubes, and the eight cubes so obtained are those required. For instance suppose that the six colours are indicated by the letters a, b, c, d, e, f. Let the cube K be put on a table, and to fix our ideas suppose that the face coloured f is at the bottom, the face coloured a is at the top, and the faces coloured b, c, d, and e front respectively the east, north, west, and south points of the compass. I may denote such an arrangement by (f; a; b, c, d, e). One cyclical permutation of the colours which meet at the north-east corner of the top face gives the cube (f; c; a, b, d, e), and a second cyclical permutation gives the cube (f; b; c, a, d, e). Similarly cyclical permutations of the colours which meet at the north-west corner of the top face of K give the cubes (f; d; b, a, c, e) and (f; c; b, d, a, e). Similarly from the top south-west corner of K we get the cubes (f; e; b, c, a, d) and (f; d; b, c, e, a): and from the top south-east corner we get the cubes (f; e; a, c, d, b) and (f; b; e, c, d, a). The eight cubes being thus determined it is not difficult to arrange them in the form of a cube coloured similarly to K, and subject to the condition that faces in contact are coloured alike; in fact they can be arranged in two ways to satisfy these conditions. One such way, taking the cubes in the numerical order given above, is to put the cubes 3, 6, 8, and 2 at the SE, NE, NW, and SW corners of the bottom face; of course each placed with the colour f at the bottom, while 3 and 6 have the colour b to the east, and 2 and 8 have the colour d to the west: the cubes 7, 1, 4, and 5 will then form the SE, NE, NW, and SW corners of the top face; of course each placed with the colour a at the top, while 7 and 1 have the colour b to the east, and 5 and 4 have

the colour d to the west. If however K is not given, then, without the aid of mathematical analysis, it is a difficult puzzle to arrange the eight cubes in the form of a cube coloured similarly to one of the other twenty-two cubes and subject to the condition that faces in contact are coloured alike. It is easy to make similar puzzles in two dimensions which are fairly difficult; it is somewhat surprising that none are to be bought, but I have never seen any except those that I have made myself. Dynamical Games of Position. Games which are played by moving pieces on boards of various shapes—such as merrilees, fox and geese, solitaire, backgammon, draughts, and chess—present more CH. II] SHUNTING PROBLEMS. 53 interest. In general, however, they permit of so many movements of the pieces that any mathematical analysis of them becomes too intricate to follow out completely. Probably this is obvious, but it may emphasize the impossibility of discussing such games effectively if I add that it has been shown that in a game of chess there may be as many as 197299 ways of playing the first four moves, and nearly 72000 different positions at the end of the first four moves (two on each side), of which 16556 arise when the players move pawns only* . Games in which the possible movements are very limited may be susceptible of mathematical treatment. One or two of these are given in the next chapter: here I shall confine myself mainly to puzzles and simple amusements. Shunting Problems. The first I will mention is a little puzzle which I bought some years ago and which was described as the “Great Northern puzzle.” It is typical of a good many problems connected with the shunting of trains, and though it rests on a most improbable hypothesis, I give it as a specimen of its kind. A BC DE F P Q R The puzzle shows a railway, DEF, with two sidings, DBA and F CA, connected at A. The portion of the rails at A which is common to the two sidings is long enough to permit of a single wagon, like P or Q, running in or out of it; but is too short to contain the whole of an engine, like R. Hence, if an engine runs up one siding, such as DBA, it must come back the same way. * L’Intermédiaire des mathématiciens, Paris, December, 1903, vol. x, pp. 305– 308: also Royal Engineers Journal, London, August–November, 1889; or British Association Transactions, 1890, p. 745. 54 SOME GEOMETRICAL QUESTIONS. [CH. II Initially a small block of wood, P, coloured to represent a wagon, is placed at B; a similar block, Q, is placed at C; and a longer block of wood, R, representing an engine, is placed at E. The problem is to use the engine R to interchange the wagons P and Q, without allowing any flying shunts. This is effected thus. (i) R pushes P into A. (ii) R returns, pushes Q up to P in A, couples Q to P, draws them both out to F, and then pushes them to E. (iii) P is now uncoupled, R takes Q back to A, and leaves it there. (iv) R returns to P, pulls P back to C, and leaves it there. (v) R running successively through F, D, B comes to A, draws Q out, and leaves it at B. A somewhat similar puzzle, on sale in the streets in 1905, is made as follows. A loop-line BGE connects two points B and E on a railway track AF, which is supposed blocked at both ends, as shown in the diagram.

In the model, the track AF is 9 inches long, AB = EF = 1 5 6 inches, and AH = FK = BC = DE = 1 4 inch. On the track and loop are eight wagons, numbered successively 1 to 8, each one inch long and AB CD EF G HK one-quarter of an inch broad, and an engine of the same dimensions. Originally the wagons are on the track from A to F and in the order 1, 2, 3, 4, 5, 6, 7, 8, and the engine is on the loop. The construction and the initial arrangement ensure that at any one time there cannot be more than eight vehicles on the track. Also if eight vehicles are on it only the penultimate vehicle at either end can be moved on to the loop, but if less than eight are on the track then the last two vehicles at either end can be moved on to the loop. If the points at each end of the loop-line are clear, it will hold four, but not more than four, vehicles. The object is to reverse the order of the wagons on the track, so that from A to F they will be numbered successively 8 to 1; and to do this by means which will involve as few transferences of the engine or a wagon to or from the loop as is possible. Other shunting problems are not uncommon, but these two examples will suffice. CH. II] FERRY-BOAT PROBLEMS. 55 Ferry-Boat Problems. Everybody is familiar with the story of the showman who was travelling with a wolf, a goat, and a basket of cabbages; and for obvious reasons was unable to leave the wolf alone with the goat, or the goat alone with the cabbages. The only means of transporting them across a river was a boat so small that he could take in it only one of them at a time. The problem is to show how the passage could be effected* . A similar problem, given by Alcuin, Tartaglia, and others, is as follows† . Three beautiful ladies have for husbands three men, who are as jealous as they are young, handsome, and gallant. The party are travelling, and find on the bank of a river, over which they have to pass, a small boat which can hold no more than two persons. How can they pass, it being agreed that, in order to avoid scandal, no woman shall be left in the society of a man unless her husband is present? The method of transportation to be used in the above cases is obvious, and can be illustrated practically by using six court cards out of a pack. Another problem similar to the one last mentioned is the case of n married couples who have to cross a river by means of a boat which can be rowed by one person and will carry n − 1 people, but not more, with the condition that no woman is to be in the society of a man unless her husband is present. Alcuin’s problem is the case of n = 3. Let y denote the number of passages from one bank to the other which will be necessary. Then it has been shown that if n = 3, y = 11; if n = 4, y = 9; and if n > 4, y = 7; the demonstration presents no difficulty. The following analogous problem is due to the late Prof. Lucas‡ . To find the smallest number x of persons that a boat must be able to carry in order that n married couples may by its aid cross a river in such a manner that no woman shall remain in the company of any man unless her husband is present; it being assumed that the boat can be rowed by one person only. Also to find the least number of passages, say y, from one bank to the other which will be required. M.

Delannoy has shown that if n = 2, then x = 2, and y = 5. If n = 3, then x = 2, and y = 11. If n = 4, then x = 3, and y = 9. If n = 5, then x = 3, and y = 11. And finally if n > 5, then x = 4, and y = 2n − 1. M. De Fonteney has remarked that, if there was an island in the * Ozanam, 1803 edition, vol. i, p. 171; 1840 edition, p. 77. † Bachet, Appendix, problem iv, p. 212. ‡ Lucas, vol. i, pp. 15–18, 237–238. 56 SOME GEOMETRICAL QUESTIONS. [CH. II middle of the river, the passage might be always effected by the aid of a boat which could carry only two persons. If there are only two or only three couples the island is unnecessary, and the case is covered by the preceding method. If n > 3 then the least number of passages from land to land which will be required is 8(n − 1). His solution is as follows. The first nine passages will be the same, no matter how many couples there may be: the result is to transfer one couple to the island and one couple to the second bank. The result of the next eight passages is to transfer one couple from the first bank to the second bank: this series of eight operations must be repeated as often as necessary until there is left only one couple on the first bank, only one couple on the island, and all the rest on the second bank. The result of the last seven passages is to transfer all the couples to the second bank. The solution for the case when there are four couples may be represented as follows. Let A and a, B and b, C and c, D and d, be the four couples. The letters in the successive lines indicate the positions of the men and their respective wives after different passages of the boat. First Bank Island Second Bank Initially ABCD abcd . . . . . After 1st passage ABCD . .cd . . . . ab. . . . . " 2nd " ABCD . bcd . . . . a. . . . . " 3rd " ABCD . . .d . . . . abc . . . . . " 4th " ABCD . .cd . . . . ab. . . . . " 5th " . . CD . .cd AB . . ab. . . . . " 6th " . . CD . .cd AB . . . . . ab. . " 7th " . . CD . .cd AB . . . b. . . . . a. . . " 8th " . . CD . .cd . . . . . b. . AB . . a. . . " 9th " . . CD . .cd . B . . . b. . A . . . a. . . " 10th " . BCD . .cd . . . . . b. . A . . . a. . . " 11th " . BCD . . . . . bcd A . . . a. . . " 12th " . BCD . . .d . . . . . bc . A . . . a. . . " 13th " . . . D . . .d . BC . . bc . A . . . a. . . " 14th " . . . D . . .d . . . . . bc . ABC . a. . . " 15th " . . . D . . .d . . . . abc . ABC . . . . . " 16th " . . . D . . .d . . . . . b. . ABC . a.c . " 17th " . . . D . . .d . B . . . b. . A . C . a.c . " 18th " . B . D . . .d . . . . . b. . A . C . a.c . CH. II] GEODESICS.. 57 First Bank Island Second Bank After 19th passage . . . . . .d . B . D . b. . A . C . a.c . " 20th " . . . . . .d . . . . . b. . ABCD a.c . " 21st " . . . . . .d . . . . . bc . ABCD a. . . " 22nd " . . . . . .d . . . . . ABCD abc . " 23rd " . . . . . .cd . . . . . ABCD ab. . " 24th " . . . . . ABCD abcd Prof. G. Tarry has suggested an extension of the problem, which still further complicates its solution. He supposes that each husband travels with a harem of m wives or concubines; moreover, as Mohammedan women are brought up in seclusion, it is reasonable to suppose that they would be unable to row a boat by themselves without the aid of a man. But perhaps the difficulties attendant on the travels of one wife may be deemed sufficient for Christians, and I content myself with merely mentioning the increased anxieties experienced by Mohammedans in similar circumstances. Geodesics. Geometrical problems

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connected with finding the shortest routes from one point to another on a curved surface are often difficult, but geodesics on a flat surface or flat surfaces are in general readily determinable. I append an instance* , but I should have hesitated to do so had not experience shown that some readers do not readily see the solution. It is as follows: A room is 30 feet long, 12 feet wide, and 12 feet high. On the middle line of one of the smaller side walls and one foot from the ceiling is a wasp. On the middle line of the opposite wall and 11 feet from the ceiling is a fly. The wasp catches the fly by crawling all the way to it: the fly, paralysed by fear, remaining still. The problem is to find the shortest route that the wasp can follow. To obtain a solution we observe that we can cut a sheet of paper so that, when folded properly, it will make a model to scale of the room. This can be done in several ways. If, when the paper is again spread out flat, we can join the points representing the wasp and the fly by a straight line lying wholly on the paper we shall obtain a geodesic route between them. Thus the problem is reduced to finding the way of cutting out the paper which gives the shortest route of the kind. * I heard a similar question propounded at Cambridge in 1903, but the only place where I have seen it in print is the Daily Mail, London, February 1, 1905. 58 SOME GEOMETRICAL QUESTIONS. [CH. II A B C D W F Here is the diagram corresponding to a solution of the above question, where A represents the floor, B and D the longer side-walls, C the ceiling, and W and F the positions on the two smaller side-walls occupied initially by the wasp and fly. In the diagram the square of the distance between W and F is (32)2+(24)2 ; hence the distance is 40 feet. Problems with Counters placed in a row. Numerous dynamical problems and puzzles may be illustrated with a box of counters, especially if there are counters of two colours. Of course coins or pawns or cards will serve equally well. I proceed to enumerate a few of these played with counters placed in a row. First Problem with Counters. The following problem must be familiar to many of my readers. Ten counters (or coins) are placed in a row. Any counter may be moved over two of those adjacent to it on the counter next beyond them. It is required to move the counters according to the above rule so that they shall be arranged in five equidistant couples. If we denote the counters in their initial positions by the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, we proceed as follows. Put 7 on 10, then 5 on 2, then 3 on 8, then 1 on 4, and lastly 9 on 6. Thus they are arranged in pairs on the places originally occupied by the counters 2, 4, 6, 8, 10. Similarly by putting 4 on 1, then 6 on 9, then 8 on 3, then 10 on CH. II] PROBLEMS WITH COUNTERS.. 59 7, and lastly 2 on 5, they are arranged in pairs on the places originally occupied by the counters 1, 3, 5, 7, 9. If two superposed counters are reckoned as only one, solutions analogous to those given above will be obtained by putting 7 on 10, then 5 on 2, then 3 on 8, then 1 on 6, and lastly 9 on 4; or by putting 4 on 1, then 6 on 9, then 8 on 3, then 10 on 5, and lastly 2 on 7 * . There is a somewhat similar game played with eight counters, but in this case the four couples

finally formed are not equidistant. Here the transformation will be effected if we move 5 on 2, then 3 on 7, then 4 on 1, and lastly 6 on 8. This form of the game is applicable equally to (8 + 2n) counters, for if we move 4 on 1 we have left on one side of this couple a row of (8 + 2n − 2) counters. This again can be reduced to one of (8 + 2n − 4) counters, and in this way finally we have left 8 counters which can be moved in the way explained above. A more complete generalization would be the case of n counters, where each counter might be moved over the m counters adjacent to it on to the one beyond them. Second Problem with Counters. Another problem of a somewhat similar kind is due to Tait† . Place four florins (or white counters) and four halfpence (or black counters) alternately in a line in contact with one another. It is required in four moves, each of a pair of two contiguous pieces, without altering the relative position of the pair, to form a continuous line of four halfpence followed by four florins. His solution is as follows. Let a florin be denoted by a and a halfpenny by b, and let ×× denote two contiguous blank spaces. Then the successive positions of the pieces may be represented thus: Initially . . . . . × × a b a b a b a b . After the first move . . . . . b a a b a b a × × b . After the second move . . b a a b × × a a b b . After the third move . . . . b × × b a a a a b b . After the fourth move . . . b b b b a a a a × ×. The operation is conducted according to the following rule. Suppose the pieces to be arranged originally in circular order, with two contiguous blank spaces, then we always move to the blank space for * Note by J. Fitzpatrick to a French translation of the third edition of this work, Paris, 1898. † Philosophical Magazine, London, January, 1884, series 5, vol. xvii, p. 39. 60 SOME GEOMETRICAL QUESTIONS. [CH. II the time being that pair of coins which occupies the places next but one and next but two to the blank space on one assigned side of it. A similar problem with 2n counters—n of them being white and n black—will at once suggest itself, and, if n is greater than 4, it can be solved in n moves. I have however failed to find a simple rule which covers all cases alike, but solutions, due to M. Delannoy, have been given* for the four cases where n is of the form 4m, 4m + 2, 4m + 1, or 4m+3; in the first two cases the first 1 2 n moves are of pairs of dissimilar counters and the last 1 2 n moves are of pairs of similar counters; in the last two cases, the first move is similar to that given above, namely, of the penultimate and antepenultimate counters to the beginning of the row, the next 1 2 (n − 1) moves are of pairs of dissimilar counters, and the final 1 2 (n − 1) moves are of similar counters. The problem is also capable of solution if we substitute the restriction that at each move the pair of counters taken up must be moved to one of the two ends of the row instead of the condition that the final arrangement is to be continuous. Tait suggested a variation of the problem by making it a condition that the two coins to be moved shall also be made to interchange places; in this form it would seem that 5 moves are required; or, in the general case, n + 1 moves are required. Problems on a Chess-board with Counters or Pawns.

The following three problems require the use of a chess-board as well as of counters or pieces of two colours. It is more convenient to move a pawn than a counter, and if therefore I describe them as played with pawns it is only as a matter of convenience and not that they have any connection with chess. The first is characterized by the fact that in every position not more than two moves are possible; in the second and third problems not more than four moves are possible in any position. With these limitations, analysis is possible. I shall not discuss the similar problems in which more moves are possible. First Problem with Pawns† . On a row of seven squares on a chessboard 3 white pawns (or counters), denoted in the diagram by “a”s, are placed on the 3 squares at one end, and 3 black pawns (or counters), denoted by “b”s, are placed on the 3 squares at the other end—the middle square being left vacant. Each piece can move only in one * La Nature, June, 1887, p. 10. † Lucas, vol. ii, part 5, pp. 141-143. CH. II] PROBLEMS WITH COUNTERS OR PAWNS. 61 direction; the “a” pieces can move from left to right, and the “b” pieces from right to left. If the square next to a piece is unoccupied, it can a a a b b b move on to that; or if the square next to it is occupied by a piece of the opposite colour and the square beyond that is unoccupied, then it can, like a queen in draughts, leap over that piece on to the unoccupied square beyond it. The object is to get all the white pawns in the places occupied initially by the black pawns and vice versa. The solution requires 15 moves. It may be effected by moving first a white pawn, then successively two black pawns then three white pawns, then three black pawns, then three white pawns, then two black pawns, and then one white pawn. We can express this solution by saying that if we number the cells (a term used to describe each of the small squares on a chess-board) consecutively, then initially the vacant space occupies the cell 4 and in the successive moves it will occupy the cells 3, 5, 6, 4, 2, 1, 3, 5, 7, 6, 4, 2, 3, 5, 4. Of these moves, six are simple and nine are leaps. Similarly if we have n white pawns at one end of a row of 2n + 1 cells, and n black pawns at the other end, they can be interchanged in n(n+2) moves, by moving in succession 1 pawn, 2 pawns, 3 pawns, . . . , n − 1 pawns, n pawns, n pawns, n pawns, n − 1 pawns, . . . , 2 pawns, and 1 pawn—all the pawns in each group being of the same colour and different from that of the pawns in the group preceding it. Of these moves 2n are simple and n 2 are leaps. Second Problem with Pawns* . A similar game may be played on a rectangular or square board. The case of a square board containing 49 cells, or small squares, will illustrate this sufficiently: in this case the initial position is shown in the annexed diagram where the “a”s denote the pawns or pieces of one colour, and the “b”s those of the other colour. The “a” pieces can move horizontally from left to right or vertically down, and the “b” pieces can move horizontally from right to left or vertically up, according to the same rules as before. The solution reduces to the preceding case. The pieces in the middle column can be interchanged in 15 moves. In the course of these moves

every one of the seven cells in that column is at some time or * Lucas, vol. ii, part 5, p. 144. 62 SOME GEOMETRICAL QUESTIONS. [CH. II a a a a b b b a a a a b b b a a a a b b b a a a b b b a a a b b b a a a b b b a a a b b b b a a a b b b b other vacant, and whenever that is the case the pieces in the row containing the vacant cell can be interchanged. To interchange the pieces in each of the seven rows will require 15 moves. Hence to interchange all the pieces will require 15 + (7 × 15) moves, that is, 120 moves. If we place 2n(n + 1) white pawns and 2n(n + 1) black pawns in a similar way on a square board of (2n + 1)2 cells, we can transpose them in 2n(n + 1)(n + 2) moves: of these 4n(n + 1) are simple and 2n 2 (n + 1) are leaps. Third Problem with Pawns. The following analogous, though somewhat more complicated, game was I believe originally published in the first edition of this work: but I find that it has been since widely a b c d e f g h ∗ H G F E D C B A distributed in connexion with an advertisement and probably now is well-known. On a square board of 25 cells, place eight white pawns or counters on the cells denoted by small letters in the annexed diagram, and eight black pawns or counters on the cells denoted by capital letters: the cell marked with an asterisk (∗) being left blank. Each pawn can move according to the laws already explained—the white pawns being able to move only horizontally from left to right or vertically downwards, and the black pawns being able to move only horizontally from right to left or vertically upwards. The object is to get all the CH. II] PROBLEMS WITH CHESS-PIECES 63 white pawns in the places initially occupied by the black pawns and vice versa. No moves outside the dark line are permitted. Since there is only one cell on the board which is unoccupied, and since no diagonal moves and no backward moves are permitted, it follows that at each move not more than two pieces of either colour are capable of moving. There are however a very large number of solutions. The following empirical solution in forty-eight moves is one way of effecting the transfer—the letters indicating the cells from which the pieces are successively moved: h H ∗ f F E H G ∗ c b h g d f F C ∗ h H B A C ∗ c a b h H ∗ c f F D G H B C ∗ g h e f F ∗ h H ∗ . It will be noticed that the first twenty-four moves lead to a symmetrical position, and that the next twenty-three moves can be at once obtained by writing the first twenty-three moves in reverse order and interchanging small and capital letters. Probably, were it worth the trouble, the mathematical theory of games such as that just described might be worked out by the use of Vandermonde's notation, described later in chapter vi, or by the analogous method employed in the theory of the game of solitaire* . I believe that this has not been done, and I do not think it would repay the labour involved. Problems on a Chess-board with Chess-pieces. There are several mathematical recreations with chess-pieces, other than pawns, somewhat similar to those given above. One of these, on the determination of the ways in which eight queens can be placed on a board so that no queen can take any other, is given later in chapter iv. Another, on the path to be followed by a knight which is moved on a chess-

board so that it shall occupy every cell once and only once, is given in chapter vi. Here I will mention one of the simplest of such problems, which is interesting from the fact that it is given in Guarini's manuscript written in 1512; it was quoted by Lucas, but so far as I know has not been otherwise published. Guarini's Problem. On a board of nine cells, such as that drawn below, the two white knights are placed on the two top corner cells * On the theory of the solitaire, see Reiss, 'Beiträge zur Theorie des Solitär-Spiels,' Crelle's Journal, Berlin, 1858, vol. liv, pp. 344–379; and Lucas, vol. i, part v, pp. 89–141. 64 SOME GEOMETRICAL QUESTIONS. [CH. II a C d D B b A c (a, d), and the two black knights on the two bottom corner cells (b, c): the other cells are left vacant. It is required to move the knights so that the white knights shall occupy the cells b and c, while the black shall occupy the cells a and d. The solution is tolerably obvious. First, move the pieces from a to A, from b to B, from c to C, and from d to D. Next, move the pieces from A to d, from B to a, from C to b, and from D to c. The effect of these eight moves is the same as if the original square had been rotated through one right angle. Repeat the above process, that is, move the pieces successively from a to A, from b to B, from c to C, from d to D; from A to d, from B to a, from C to b, and from D to c. The required result is then attained. Geometrical Puzzles with Rods, etc. Another species of geometrical puzzles, to which here I will do no more than allude, are made of steel rods, or of wire, or of wire and string. Numbers of these are often sold in the streets of London for a penny each, and some of them afford ingenious problems in the geometry of position. Most of them could hardly be discussed without the aid of diagrams, but they are inexpensive to construct, and in fact innumerable puzzles on geometry of position can be made with a couple of stout sticks and a ball of string, or even with only a box of matches: several examples are given in the appendix to the fourth volume of the 1723 edition of Ozanam's work. I will mention, as an easy example, analogous to one group of the string puzzles, that any one can take off his waistcoat (which may be unbuttoned) without taking off his coat, and without pulling the waistcoat over the head like a jersey. This last feat may serve to show the difficulty of mentally realizing the effect of geometrical alterations in a figure unless they are of the simplest character. Paradromic Rings. The fact just stated is illustrated by the familiar experiment of making paradromic rings by cutting a paper CH. II] PARADROMIC RINGS. 65 ring prepared in the following manner. Take a strip of paper or piece of tape, say, for convenience, an inch or two wide and at least nine or ten inches long, rule a line in the middle down the length AB of the strip, gum one end over the other end B, and we get a ring like a section of a cylinder. If this ring is cut by a pair of scissors along the ruled line we obtain two rings exactly like the first, except that they are only half the width. Next suppose that the end A is twisted through two right angles before it is gummed to B (the result of which is that the back of the strip at A is gummed over the

front of the strip at B), then a cut along the line will produce only one ring. Next suppose that the end A is twisted once completely round (i.e. through four right angles) before it is gummed to B, then a similar cut produces two interlaced rings. If any of my readers think that these results could be predicted off-hand, it may be interesting to them to see if they can predict correctly the effect of again cutting the rings formed in the second and third experiments down their middle lines in a manner similar to that above described. The theory is due to J.B. Listing* who discussed the case when the end A receives m half-twists, that is, is twisted through mπ, before it is gummed to B. If m is even we obtain a surface which has two sides and two edges, which are termed paradromic. If the ring is cut along a line midway between the edges, we obtain two rings, each of which has m half-twists, and which are linked together 1 2m times. If m is odd we obtain a surface having only one side and one edge. If this ring is cut along its mid-line, we obtain only one ring, but it has 2m half-twists, and if m is greater than unity it is knotted. * Vorstudien zur Topologie, Die Studien, Göttingen, 1847, part x. CHAPTER III. SOME MECHANICAL QUESTIONS. I proceed now to enumerate a few questions connected with mechanics which lead to results that seem to me interesting from a historical point of view or paradoxical. Problems in mechanics generally involve more difficulties than problems in arithmetic, algebra, or geometry, and the explanations of some phenomena—such as those connected with the flight of birds—are still incomplete, while the explanations of many others of an interesting character are too difficult to find a place in a non-technical work. Here, however, I shall confine myself to questions which, like those treated in the two preceding chapters, are of an elementary, not to say trivial, character; and the conclusions are well-known to mathematicians. I assume that the reader is acquainted with the fundamental ideas of kinematics and dynamics, and is familiar with the three Newtonian laws; namely, first that a body will continue in its state of rest or of uniform motion in a straight line unless compelled to change that state by some external force: second, that the change of momentum per unit of time is proportional to the external force and takes place in the direction of it: and third, that the action of one body on another is equal in magnitude but opposite in direction to the reaction of the second body on the first. The first and second laws state the principles required for solving any question on the motion of a particle under the action of given forces. The third law supplies the additional principle required for the solution of problems in which two or more particles influence one another. 66 CH. III] ZENO'S PARADOXES.. 67 Motion. The difficulties connected with the idea of motion have been for a long time a favourite subject for paradoxes, some of which bring us into the realm of the philosophy of mathematics. Zeno's Paradoxes on Motion. One of the earliest of these is the remark of Zeno to the effect that since an arrow cannot move where it is not, and since also it cannot move where it is (i.e. in

the space it exactly fills), it follows that it cannot move at all. The answer that the very idea of the motion of the arrow implies the passage from where it is to where it is not was rejected by Zeno, who seems to have thought that the appearance of motion of a body was a phenomenon caused by the successive appearances of the body at rest but in different positions. Zeno also asserted that the idea of motion was itself inconceivable, for what moves must reach the middle of its course before it reaches the end. Hence the assumption of motion presupposes another motion, and that in turn another, and so ad infinitum. His objection was in fact analogous to the biological difficulty expressed by Swift:— "So naturalists observe, a flea hath smaller fleas that on him prey. And these have smaller fleas to bite 'em. And so proceed ad infinitum." Or as De Morgan preferred to put it "Great fleas have little fleas upon their backs to bite 'em, And little fleas have lesser fleas, and so ad infinitum. And the great fleas themselves, in turn, have greater fleas to go on; While these have greater still, and greater still, and so on." Achilles and the Tortoise. Zeno's paradox about Achilles and the tortoise is known even more widely. The assertion was that if Achilles ran ten times as fast as a tortoise, yet if the tortoise had (say) 1000 yards start it could never be overtaken. To establish this, Zeno argued that when Achilles had gone the 1000 yards, the tortoise would still be 100 yards in front of him; by the time he had covered these 100 yards, it would still be 10 yards in front of him; and so on for ever. Thus Achilles would get nearer and nearer to the tortoise but would never overtake it. Zeno regarded this as confirming his view that the popular idea of motion is self-contradictory. 68 MECHANICAL RECREATIONS. [CH. III Zeno's Paradox on Time. The fallacy of Achilles and the Tortoise is usually explained by saying that though the time required to overtake the tortoise can be divided into an infinite number of intervals, as stated in the argument, yet these intervals get smaller and smaller in geometrical progression, and the sum of them all is a finite time: after the lapse of that time Achilles would be in front of the tortoise. Probably Zeno would have replied that this explanation rests on the assumption that space and time are infinitely divisible, propositions which he would not admit. He seems further to have contended that while, to an accurate thinker, the notion of the infinite divisibility of time was impossible, it was equally impossible to think of a minimum measure of time. For suppose, he argued, that τ is the smallest conceivable interval, and suppose that three horizontal lines composed of three consecutive spans abc, a ' b ' c ' , a ''b ''c '' are placed so that aa'a '' , bb' b '' , cc' c '' are vertically over one another. Imagine the second line moved as a whole one span to the right in the time τ , and simultaneously the third line moved as a whole one span to the left. Then b, a ' , c '' will be vertically over one another. And in this duration τ (which by hypothesis is indivisible) c ' must have passed vertically over a ''. Hence the duration is divisible, contrary to the hypothesis. The Paradox of Tristram Shandy. Mr Russell has enunciated* a

paradox somewhat similar to that of Achilles and the Tortoise, save that the intervals of time considered get longer and longer during the course of events. Tristram Shandy, as we know, took two years writing the history of the first two days of his life, and lamented that, at this rate, material would accumulate faster than he could deal with it, so that he could never come to an end, however long he lived. But had he lived long enough, and not wearied of his task, then, even if his life had continued as eventfully as it began, no part of his biography would have remained unwritten. For if he wrote the events of the first day in the first year, he would write the events of the nth day in the nth year, hence in time the events of any assigned day would be written, and therefore no part of his biography would remain unwritten. This argument might be put in the form of a demonstration that the part of a magnitude may be equal to the whole of it. Questions, such as those given above, which are concerned with the continuity and extent of space and time involve difficulties of a * B.A.W. Russell, Principles of Mathematics, Cambridge, 1903, vol. i, p. 358. CH. III] ANGULAR MOTION. 69 high order. Angular Motion. A non-mathematician finds additional difficulties in the idea of angular motion. For instance, here is a well-known proposition on motion in an equiangular spiral (of which the result is true on the ordinary conventions of mathematics) which shows that a body, moving with uniform velocity and as slowly as we please, may in a finite time whirl round a fixed point an infinite number of times. The equiangular spiral is the trace of a point P, which moves along a line OP, the line OP turning round a fixed point O with uniform angular velocity while the distance of P from O decreases with the time in geometrical progression. If the radius vector rotates through four right angles we have one convolution of the curve. All convolutions are similar, and the length of each convolution is a constant fraction, say 1/nth, that of the convolution immediately outside it. Inside any given convolution, there are an infinite number of convolutions which get smaller and smaller as we get nearer the pole. Now suppose a point Q to move uniformly along the spiral from any point towards the pole. If it covers the first convolution in a seconds, it will cover the next in a/n seconds, the next in a/n2 seconds, and so on, and will finally reach the pole in (a+a/n+a/n2 +a/n3 +· · ·) seconds, that is, in an/(n−1) seconds. The velocity is uniform, and yet in a finite time, Q will have traversed an infinite number of convolutions and therefore have circled round the pole an infinite number of times* . Simple Relative Motion. Even if the philosophical difficulties suggested by Zeno are settled or evaded, the mere idea of relative motion has been often found to present difficulties, and Zeno himself failed to explain a simple phenomenon involving the principle. As one of the easiest examples of this kind, I may quote the common question of how many trains going from B to A a passenger from A to B would meet and pass on his way, assuming that the journey either way takes 4 1 2 hours and that the trains start from each end every hour. The answer is 9. Or again this: Take two

pennies, face upwards on a table and edges in contact. Suppose that one is fixed and that the other rolls on it without slipping, making one complete revolution round it and returning to its initial position. How many revolutions round its own centre has the rolling coin made? The answer is 2. * The proposition is put in this form in J. Richard's Philosophie des mathématiques, Paris, 1903, pp. 119–120. 70 MECHANICAL RECREATIONS. [CH. III Laws of Motion. I proceed next to make a few remarks on points connected with the laws of motion. The first law of motion is often said to define force, but it is in only a qualified sense that this is true. Probably the meaning of the law is best expressed in Clifford's phrase, that force is "the description of a certain kind of motion"—in other words it is not an entity but merely a convenient way of stating, without circumlocution, that a certain kind of motion is observed. It is not difficult to show that any other interpretation lands us in difficulties. Thus some authors use the law to justify a definition that force is that which moves a body or changes its motion; yet the same writers speak of a steam-engine moving a train. It would seem then that, according to them, a steam-engine is a force. That such statements are current may be fairly reckoned among mechanical paradoxes. The idea of force is difficult to grasp. How many people, for instance, could predict correctly what would happen in a question as simple as the following? A rope (whose weight may be neglected) hangs over a smooth pulley; it has one end fastened to a weight of 10 stone, and the other end to a sailor of weight 10 stone, the sailor and the weight hanging in the air. The sailor begins to climb up the rope; will the weight move at all; and, if so, will it rise or fall? It will be noted that in the first law of motion it is asserted that, unless acted on by an external force, a body in motion continues to move (i) with uniform velocity, and (ii) in a straight line. The tendency of a body to continue in its state of rest or of uniform motion is called its inertia. This tendency may be used to explain various common phenomena and experiments. Thus, if a number of dominoes or draughts are arranged in a vertical pile, a sharp horizontal blow on one of those near the bottom will send it out of the pile, and those above will merely drop down to take its place—in fact they have not time to change their relative positions before there is sufficient space for them to drop vertically as if they were a solid body. This also is the principle on which depends the successful playing of "Aunt Sally," and the performance of numerous tricks, described in collections of mathematical puzzles* . * See Les récréations scientifiques by G. Tissandier, where several ingenious illustrations of inertia are given. CH. III] LAWS OF MOTION. 71 The statement about inertia in the first law may be taken to imply that a body set in rotation about a principal axis passing through its centre of mass will continue to move with a uniform angular velocity and to keep its axis of rotation fixed in direction. The former of these statements is the assumption on which our measurement of time is based as mentioned below in chapter xiii. The latter assists us to explain the motion of a projectile in a resisting

fluid. It affords the explanation of why the barrel of a rifle is grooved; and why, similarly, anyone who has to throw a flat body of irregular shape (such as a card) in a given direction usually gives it a rapid rotatory motion about a principal axis. Elegant illustrations of the fact just mentioned are afforded by a good many of the tricks of acrobats, though the full explanation of most of them also introduces other considerations. Thus when some few years ago the Japanese village at Knightsbridge was one of the shows of London, there were some acrobats there who tossed on to the top surface of an umbrella a penny so that it alighted on its edge, and then, by turning round the stick of the umbrella rapidly, the coin was caused to rotate, but as the umbrella moved away underneath it the coin remained apparently stationary and standing upright, while by diminishing or increasing the angular velocity of the umbrella the penny was caused to run forwards or backwards. This is not a difficult trick to execute. The tendency of a body in motion to continue to move in a straight line is sometimes called its centrifugal force. Thus, if a train is running round a curve, it tends to move in a straight line, and is constrained only by the pressure of the rails to move in the required direction. Hence it presses on the outer rail of the curve. This pressure can be diminished to some extent both by raising the outer rail, and by putting a guard rail, parallel and close to the inner rail, against which the wheels on that side also will press. An illustration of this fact occurred in a little known incident of the American civil war* . In the spring of 1862 a party of volunteers from the North made their way to the rear of the Southern armies and seized a train, intending to destroy, as they passed along it, the railway which was the main line of communication between various confederate corps and their base of operations. They were however detected and pursued. To save themselves, they stopped on a sharp curve and tore * Capturing a Locomotive by W. Pittenger, London, 1882, p. 104. 72 MECHANICAL RECREATIONS. [CH. III up some rails so as to throw the engine which was following them off the line. Unluckily for themselves they were ignorant of dynamics and tore up the inner rails of the curve, an operation which did not incommode their pursuers. The second law gives us the means of measuring mass, force, and therefore work. A given agent in a given time can do only a definite amount of work. This is illustrated by the fact that although, by means of a rigid lever and a fixed fulcrum, any force however small may be caused to move any mass however large, yet what is gained in power is lost in speed—as the popular phrase runs. Montucla* inserted a striking illustration of this principle founded on the well-known story of Archimedes who is said to have declared to Hiero that, were he but given a fixed fulcrum, he could move the world. Montucla calculated the mass of the earth and, assuming that a man could work incessantly at the rate of 116 foot-lbs. per second, which is a very high estimate, he found that it would take over three billion centuries, i.e. 3 × 1014 years, before a mass equal to that of the earth was moved as much

as one inch against gravity at the surface of the earth: to move it one inch along a horizonal plane would take about 74000 centuries. Stability of Equilibrium. It is known to all those who have read the elements of mechanics that the centre of gravity of a body, which is resting in equilibrium under its own weight, must be vertically above its base: also, speaking generally, we may say that, if every small displacement has the effect of raising the centre of gravity, then the equilibrium is stable, that is, the body when left to itself will return to its original position; but, if a displacement has the effect of lowering the centre of gravity, then for that displacement the equilibrium is unstable; while, if every displacement does not alter the height above some fixed plane of the centre of gravity, then the equilibrium is neutral. In other words, if in order to cause a displacement work has to be done against the forces acting on the body, then for that displacement the equilibrium is stable, while if the forces do work the equilibrium is unstable. A good many of the simpler mechanical toys and tricks afford illustrations of this principle. * Ozanam, 1803 edition, vol. ii, p. 18; 1840 edition, p. 202. CH. III] MAGIC BOTTLES. 73 Magic Bottles* . Among the most common of such toys are the small bottles—trays of which may be seen any day in the streets of London—which keep always upright, and cannot be upset until their owner orders them to lie down. Such a bottle is made of thin glass or varnished paper fixed to the plane surface of a solid hemisphere or smaller segment of a sphere. Now the distance of the centre of gravity of a homogeneous hemisphere from the centre of the sphere is threeeighths of the radius, and the mass of the glass or varnished paper is so small compared with the mass of the lead base that the centre of gravity of the whole bottle is still within the hemisphere. Let us denote the centre of the hemisphere by C, and the centre of gravity of the bottle by G. If such a bottle is placed with the hemisphere resting on a horizontal plane and GC vertical, any small displacement on the plane will tend to raise G, and thus the equilibrium is stable. This may be seen also from the fact that when slightly displaced there is brought into play a couple, of which one force is the reaction of the table passing through C and acting vertically upward, and the other the weight of the bottle acting vertically downward at G. If G is below C, this couple tends to restore the bottle to its original position. If there is dropped into the bottle a shot or nail so heavy as to raise the centre of gravity of the whole above C, then the equilibrium is unstable, and, if any small displacement is given, the bottle falls over on to its side. Montucla says that in his time it was not uncommon to see boxes of tin soldiers mounted on lead hemispheres, and when the lid of the box was taken off the whole regiment sprang to attention. In a similar way we may explain how to balance a pencil in a vertical position, with its point resting on the top of one’s finger, an experiment which is described in nearly every book of puzzles† . This is effected by taking a penknife, of which one blade is opened through an angle of (say) 120◦ , and sticking the blade in the pencil so that the handle of the

penknife is below the finger. The centre of gravity is thus brought below the point of support, and a small displacement given to the pencil will raise the centre of gravity of the whole: thus the equilibrium is stable. * Ozanam, 1803 edition, vol. ii, p. 15; 1840 edition, p. 201. † Ex. gr. Oughtred, Mathematical Recreations, p. 24; Ozanam, 1803 edition, vol. ii, p. 14; 1840 edition, p. 200. 74 MECHANICAL RECREATIONS. [CH. III Other similar tricks are the suspension of a bucket over the edge of a table by a couple of sticks, and the balancing of a coin on the edge of a wine-glass by the aid of a couple of forks*—the sticks or forks being so placed that the centre of gravity of the whole is vertically below the point of support and its depth below it a maximum. The toy representing a horseman, whose motion continually brings him over the edge of a table into a position which seems to ensure immediate destruction, is constructed in somewhat the same way. A wire has one end fixed to the feet of the rider; the wire is curved downwards and backwards, and at the other end is fixed a weight. When the horse is placed so that his hind legs are near the edge of the table and his forefeet over the edge, the weight is under his hind feet. Thus the whole toy forms a pendulum with a curved instead of a straight rod. Hence the farther it swings over the table, the higher is the centre of gravity raised, and thus the toy tends to return to its original position of equilibrium. An elegant modification of the prancing horse was brought out at Paris in 1890 in the shape of a toy made of tin and in the figure of a man† . The legs are pivoted so as to be movable about the thighs, but with a wire check to prevent too long a step, and the hands are fastened to the top of a T -shaped wire weighted at its ends. If the figure is placed on a narrow sloping plank or strip of wood passing between the legs of the T , then owing to the T -shaped wire any lateral displacement of the figure will raise its centre of gravity, and thus for any such displacement the equilibrium is stable. Hence, if a slight lateral disturbance is given, the figure will oscillate and will rest alternately on each foot: when it is supported by one foot the other foot under its own weight moves forwards, and thus the figure will walk down the plank though with a slight reeling motion. Shortly after the publication of the third edition of this book an improved form of this toy, in the shape of a walking elephant made in heavy metal, was issued in England, and probably in that form it is now familiar to all who are interested in noticing street toys. Columbus's Egg. The toy known as Columbus's egg depends on the same principle as the magic bottle, though it leads to the converse result. The shell of the egg is made of tin and cannot be opened. Inside * Oughtred, p. 30; Ozanam, 1803 edition, vol. ii, p. 12; 1840 edition, p. 199. † La Nature, Paris, March, 1891. CH. III] CONES RUNNING UP HILL. 75 it and fastened to its base is a hollow truncated tin cone, and there is also a loose marble inside the shell. If the egg is held properly, the marble runs inside the cone and the egg will stand on its base, but so long as the marble is outside the cone, the egg cannot be made to stand on its base. Cones running up hill* . The experiment

to make a double cone run up hill depends on the same principle as the toys above described; namely, on the tendency of a body to take a position so that its centre of gravity is as low as possible. In this case it produces the optical effect of a body moving by itself up a hill. Usually the experiment is performed as follows. Arrange two sticks in the shape of a W , with the apex on a table and the two upper ends resting on the top edge of a book placed on the table. Take two equal cones fixed base to base, and place them with the curved surfaces resting on the sticks near the apex of the W , the common axis of the cones being horizontal and parallel to the edge of the book. Then, if properly arranged, the cones will run up the plane formed by the sticks. The explanation is obvious. The centre of gravity of the cones moves in the vertical plane midway between the two sticks and it occupies a lower position as the points of contact on the sticks get farther apart. Hence as the cone rolls up the sticks its centre of gravity descends. Perpetual Motion. The idea of making a machine which once set going would continue to go for ever by itself has been the ignis fatuus of self-taught mechanicians in much the same way as the quadrature of the circle has been of self-taught geometricians. Now the obvious meaning of the third law of motion is that a force is only one aspect of a stress, and that whenever a force is caused another equal and opposite one is brought also into existence—though it may act upon a different body, and thus be immaterial for the particular problem considered. The law however is capable of another interpretation† , namely, that the rate at which an agent does work (that is, its action) is equal to the rate at which work is done against it (that is, its reaction). If it is allowable to include in the reaction the rate at which kinetic energy is being produced, and if work is taken to include * Ozanam, 1803 edition, vol. ii, p. 49; 1840 edition, p. 216. † Newton's Principia, last paragraph of the Scholium to the Laws of Motion. 76 MECHANICAL RECREATIONS. [CH. III that done against molecular forces, then it follows from this interpretation that the work done by an agent on a system is equivalent to the total increase of energy, that is, the power of doing work. Hence in an isolated system the total amount of energy is constant. If this is granted, then since friction and some molecular dissipation of energy cannot be wholly prevented, it must be impossible to construct in an isolated system a machine capable of perpetual motion. I do not propose to describe in detail the various machines for producing perpetual motion which have been suggested, but I may add that a number of them are equivalent essentially to the one of which a section is represented in the accompanying figure. C It consists of two concentric vertical wheels in the same plane, and mounted on a horizontal axle through their centre, C. The space between the wheels is divided into compartments by spokes inclined at a constant angle to the radii to the points whence they are drawn, and each compartment contains a heavy bullet. Apart from these bullets, the wheels would be in equilibrium. Each bullet tends to turn the wheels round their axle, and

the moment which measures this tendency is the product of the weight of the bullet and its distance from the vertical through C. The idea of the constructors of such machines was that, as the bullet in any compartment would roll under gravity to the lowest point of the compartment, the bullets on the right-hand side of the diagram would be farther from the vertical through C than those on the left. Hence the sum of the moments of the weights of the bullets on the CH. III] PERPETUAL MOTION. 77 right would be greater than the sum of the moments of those on the left. Thus the wheels would turn continually in the same direction as the hands of a watch. The fallacy in the argument is obvious. Another large group of machines for producing perpetual motion depended on the use of a magnet to raise a mass which was then allowed to fall under gravity. Thus, if the bob of a simple pendulum was made of iron, it was thought that magnets fixed near the highest points which were reached by the bob in the swing of the pendulum would draw the bob up to the same height in each swing and thus give perpetual motion. Of course it is only in isolated systems that the total amount of energy is constant, and, if a source of external energy can be obtained from which energy is continually introduced into the system, perpetual motion is, in a sense, possible; though even here materials would ultimately wear out. The solar heat and the tides are among the most obvious of such sources. There was at Paris in the latter half of the eighteenth century a clock which was an ingenious illustration of such perpetual motion* . The energy which was stored up in it to maintain the motion of the pendulum was provided by the expansion of a silver rod. This expansion was caused by the daily rise of temperature, and by means of a train of levers it wound up the clock. There was a disconnecting apparatus, so that the contraction due to a fall of temperature produced no effect, and there was a similar arrangement to prevent overwinding. I believe that a rise of eight or nine degrees Fahrenheit was sufficient to wind up the clock for twenty-four hours. I have in my possession a watch, which produces the same effect by somewhat different means. Inside the case is a steel weight, and if the watch is carried in a pocket this weight rises and falls at every step one takes, somewhat after the manner of a pedometer. The weight is raised by the action of the person who has it in his pocket in taking a step, and in falling it winds up the spring of the watch. On the face is a small dial showing the number of hours for which the watch is wound up. As soon as the hand of this dial points to fifty-six hours, the train of levers which winds up the watch disconnects automatically, so as to prevent overwinding the spring, and it reconnects again as soon as the watch has run down eight hours. The watch is an excellent timekeeper, and a walk of about a couple of miles is sufficient to wind it * Ozanam, 1803 edition, vol. ii, p. 105; 1840 edition, p. 238. 78 MECHANICAL RECREATIONS. [CH. III up for twenty-four hours. Models. I may add here the observation, which is well known to mathematicians, but is a perpetual source of disappointment to ignorant inventors, that it frequently happens that an

accurate model of a machine will work satisfactorily while the machine itself will not do so. One reason for this is as follows. If all the parts of a model are magnified in the same proportion, say m, and if thereby a line in it is increased in the ratio m : 1, then the areas and volumes in it will be increased respectively in the ratios m2 : 1 and m3 : 1. For example, if the side of a cube is doubled then a face of it will be increased in the ratio 4 : 1 and its volume will be increased in the ratio 8 : 1. Now if all the linear dimensions are increased m times, then some of the forces that act on a machine (such, for example, as the weight of part of it) will be increased m3 times, while others which depend on area (such as the sustaining power of a beam) will be increased only m2 times. Hence the forces that act on the machine and are brought into play by the various parts may be altered in different proportions, and thus the machine may be incapable of producing results similar to those which can be produced by the model. The same argument has been adduced in the case of animal life to explain why very large specimens of any particular breed or species are usually weak. For example, if the linear dimensions of a bird were increased n times, the work necessary to give the power of flight would have to be increased no less than n 7 times* . Again, if the linear dimensions of a man of height 5 ft. 10 in. were increased by one-seventh his height would become 6 ft. 8 in., but his weight would be increased in the ratio 512 : 343 (i.e. about half as much again), while the cross sections of his legs, which would have to bear this weight, would be increased only in the ratio 64 : 49; thus in some respects he would be less efficient than before. Of course the increased dimensions, length of limb, or size of muscle might be of greater advantage than the relative loss of strength; hence the problem of what are the most efficient proportions is not simple, but the above argument will serve to illustrate the fact that the working of a machine may not be similar to that of a model of it. * Helmholtz, Gesammelte Abhandlungen, Leipzig, 1881, vol. i, p. 165. CH. III] SAILING QUICKER THAN THE WIND. 79 Leaving now these elementary considerations I pass on to some other mechanical questions. Sailing quicker than the Wind. As a kinematical paradox I may allude to the possibility of sailing quicker than the wind blows, a fact which strikes many people as curious. The explanation* depends on the consideration of the velocity of the wind relative to the boat. Perhaps, however, a non-mathematician will find the solution simplified if I consider first the effect of the windpressure on the back of the sail which drives the boat forward, and second the resistance to motion caused by the sail being forced through the air. When the wind is blowing against a plane sail the resultant pressure of the wind on the sail may be resolved into two components, one perpendicular to the sail (but which in general is not a function only of the component velocity in that direction, though it vanishes when that component vanishes) and the other parallel to its plane. The latter of these has no effect on the motion of the ship. The component perpendicular to the

sail tends to move the ship in that direction. This pressure, normal to the sail, may be resolved again into two components, one in the direction of the keel of the boat, the other in the direction of the beam of the boat. The former component drives the boat forward, the latter to leeward. It is the object of a boat-builder to construct the boat on lines so that the resistance of the water to motion forward shall be as small as possible, and the resistance to motion in a perpendicular direction (i.e. to leeward) shall be as large as possible; and I will assume for the moment that the former of these resistances may be neglected, and that the latter is so large as to render motion in that direction impossible. Now, as the boat moves forward, the pressure of the air on the front of the sail will tend to stop the motion. As long as its component normal to the sail is less than the pressure of the wind behind the sail and normal to it, the resultant of the two will be a force behind the sail and normal to it which tends to drive the boat forwards. But as the velocity of the boat increases, a time will arrive when the pressure of the wind is only just able to balance the resisting force which is caused by the sail moving through the air. The velocity of the boat will not * Ozanam, 1803 edition, vol. iii, pp. 359, 367; 1840 edition, pp. 540, 543. 80 MECHANICAL RECREATIONS. [CH. III BR S L A W increase beyond this, and the motion will be then what mathematicians describe as “steady.” In the accompanying figure, let BAR represent the keel of a boat, B being the bow, and let SAL represent the sail. Suppose that the wind is blowing in the direction WA with a velocity u; and that this direction makes an angle θ with the keel, i.e. angle WAR = θ. Suppose that the sail is set so as to make an angle α with the keel, i.e. angle BAS = α, and therefore angle WAL = θ + α. Suppose finally that v is the velocity of the boat in the direction AB. I have already shown that the solution of the problem depends on the relative directions and velocities of the wind and the boat; hence to find the result reduce the boat to rest by impressing on it a velocity v in the direction BA. The resultant velocity of v parallel to BA and of u parallel to WA will be parallel to SL, if v sin α = u sin(θ + α); and in this case the resultant pressure perpendicular to the sail vanishes. Thus, for steady motion we have v sin α = u sin(θ + α). Hence, whenever sin(θ + α) > sin α, we have v > u. Suppose, to take one instance, the sail to be fixed, that is, suppose α to be a constant. Then v is a maximum if θ + α = 1 2 π, that is, if θ is equal to the complement of α. In this case we have v = u cosec α, and therefore v is greater than u. Hence, if the wind makes the same angle α abaft the beam that the sail makes with the keel, the velocity of the boat will be greater than the velocity of the wind. Next, suppose that the boat is running close to the wind, so that the wind is before the beam (see figure below), then in the same way as before we have v sin α = u sin(θ + α), or v sin α = u sin ϕ, where CH. III] BOAT MOVED BY A ROPE.. 81 ϕ = angle WAS = π − θ − α. Hence v = u sin ϕ cosec α. Let w be the component velocity of the boat in the teeth of the wind, that is, in the direction AW. Then we have w = v cos BAW = v cos(α + ϕ) = u sin ϕ

cosec α cos(α + ϕ). If α is constant, this is a maximum when ϕ = 1 4 π − 1 2 α; and, if ϕ has this value, then w = 1 2 u(cosec α − 1). This formula shows that w is greater than u, if sin α < 1 3 . Thus, if the sails can be set so that α is less than sin−1 1 3 , that is, rather less than 19◦29′ , and if the wind has the direction above assigned, then the component velocity of the boat in the face of the wind is greater than the velocity of the wind. The above theory is curious, but it must be remembered that in practice considerable allowance has to be made for the fact that no boat for use on water can be constructed in which the resistance to BR S L A W motion in the direction of the keel can be wholly neglected, or which would not drift slightly to leeward if the wind was not dead astern. Still this makes less difference than might be thought by a landsman. In the case of boats sailing on smooth ice the assumptions made are substantially correct, and the practical results are said to agree closely with the theory. Boat moved by a Rope. There is a form of boat-racing, occasionally used at regattas, which affords a somewhat curious illustration of certain mechanical principles. The only thing supplied to the crew 82 MECHANICAL RECREATIONS. [CH. III is a coil of rope, and they have, without leaving the boat, to propel it from one point to another as rapidly as possible. The motion is given by tying one end of the rope to the after thwart, and giving the other end a series of violent jerks in a direction parallel to the keel. I am told that in still water a pace of two or three miles an hour can be thus attained. The chief cause for this result seems to be that the friction between the boat and the water retards all relative motion, but is not great enough to materially affect motion caused by a sufficiently big impulse. Hence the usual movements of the crew in the boat do not sensibly move the centre of gravity of themselves and the boat, but this does not apply to an impulsive movement, and if the crew in making a jerk move their centre of gravity towards the bow n times more rapidly than it returns after the jerk, then the boat is impelled forwards at least n times more than backwards: hence on the whole the motion is forwards. Motion of Fluids and Motion in Fluids. The theories of motion of fluids and motion in fluids involve considerable difficulties. Here I will mention only one or two instances—mainly illustrations of Hauksbee's Law. Hauksbee's Law. When a fluid is in rapid motion the pressure is less than when it is at rest* . Thus, if a current of air is moving in a tube, the pressure on the sides of the tube is less than when the air is at rest— and the quicker the air moves the smaller is the pressure. This fact was noticed by Hauksbee nearly two centuries ago. In an elastic perfect fluid in which the pressure is proportional to the density, the law connecting the pressure, p, and the steady velocity, v, is p = Πα −v 2 where Π and α are constants: the establishment of corresponding formula for gases where the pressure is proportional to a power of the density presents no difficulty. This principle is illustrated by a twopenny toy, on sale in most toy-shops, called the pneumatic mystery. It consists of a tube, with a cup-shaped end in which rests a wooden ball.

If the tube is held in a vertical position, with the mouthpiece at the upper end and the cup at * See Besant, Hydromechanics, Cambridge, 1867, art. 149, where however it is assumed that the pressure is proportional to the density. Hauksbee was the earliest writer who called attention to the problem, but I do not know who first explained the phenomenon; some references to it are given by Willis, Cambridge Philosophical Transactions, 1830, vol. iii, pp. 129–140. CH. III] SPIN ON TENNIS AND CRICKET BALLS.. 83 the lower end, then, if anyone blows hard through the tube and places the ball against the cup, the ball will remain suspended there. The explanation is that the pressure of the air below the ball is so much greater than the pressure of the air in the cup that the ball is held up. The same effect may be produced by fastening to one end of a tube a piece of cardboard having a small hole in it. If a piece of paper is placed over the hole and the experimenter blows through the tube, the paper will not be detached from the card but will bend so as to allow the egress of the air. An exactly similar experiment, described in many text-books on hydromechanics, is made as follows. To one end of a straight tube a plane disc is fitted which is capable of sliding on wires projecting from the end of the tube. If the disc is placed at a small distance from the end, and anyone blows steadily into the tube, the disc will be drawn towards the tube instead of being blown off the wires, and will oscillate about a position near the end of the tube. In the same way we may make a tube by placing two books on a table with their backs parallel and an inch or so apart and laying a sheet of newspaper over them. If anyone blows steadily through the tube so formed, the paper will be sucked in instead of being blown out. The following experiment is explicable by the same argument. On the top of a vertical axis balance a thin horizontal rod. At each end of this rod fasten a small vertical square or sail of thin cardboard—the two sails being in the same plane. If anyone blows close to one of these squares and in a direction parallel to its plane, the square will move towards the side on which one is blowing, and the rod with the two sails will rotate about the axis. The experiments above described can be performed so as to illustrate Hauksbee's Law; but unless care is taken other causes will be also introduced which affect the phenomena: it is however unnecessary for my purpose to go into these details. Cut on a Tennis-Ball. Racquet and tennis players know that if a strong cut is given to a ball it can be made to rebound off a vertical wall and then (without striking the floor or any other wall) return and hit the wall again. This affords another illustration of Hauksbee's Law. The explanation* is that the cut causes the ball to rotate rapidly about an axis * See Magnus on 'Die Abweichung der Geschosse' in the Abhandlungen der 84 MECHANICAL RECREATIONS. [CH. III through its centre of figure, and the friction of the surface of the ball on the air produces a sort of whirlpool. This rotation is in addition to its motion of translation. Suppose the ball to be spherical and rotating about an axis through its centre perpendicular to the plane of the paper in the direction of the arrow-head, and at

the same time moving through still air from left to right parallel to P Q. Any motion of the ball perpendicular to P Q will be produced by the pressure of the air on the surface of the ball, and this pressure will, by Hauksbee's Law, be greatest where the velocity of the air relative to the ball is least, and vice versa. To find the velocity of the air relative to the ball we may reduce the centre of the ball to rest, and suppose a stream of air to impinge on the surface of the ball moving with a velocity equal and opposite to that of the centre of the ball. The air is not frictionless, and therefore the air in contact with the surface of the ball will be set in motion, by the rotation of the ball and will form a sort of whirlpool rotating in the direction of the arrow-head in the figure. To find the actual velocity of this air relative to the ball we must consider how the motion due to the whirlpool is affected by the motion of the stream of air parallel to QP. The air at A in the whirlpool is moving against the stream of air there, and therefore its velocity is retarded: the air at B in the whirlpool is moving in the same direction as the stream of air there, and therefore its velocity is increased. Hence the relative velocity of the air at A is less than that at B, and since the pressure of the air is greatest where the velocity is least, the pressure of the air on the surface of the ball at A is greater than on that at B, Hence the ball is forced by this pressure in the direction from the line P Q, P Q A B which we may suppose to represent the section of the vertical wall in Akademie der Wissenschaften, Berlin, 1852, pp. 1–23; Lord Rayleigh, 'On the irregular flight of a tennis ball,' Messenger of Mathematics, Cambridge, 1878, vol. vii, pp. 14–16. CH. III] FLIGHT OF BIRDS. 85 a racquet-court. In other words, the ball tends to move at right angles to the line in which its centre is moving and in the direction in which the surface of the front of the ball is being carried by the rotation. In the case of a lawn tennis-ball, the shape of the ball is altered by a strong cut, and this introduces additional complications. Spin on a Cricket-Ball. The curl of a cricket-ball in its flight through the air, caused by a spin given by the bowler in delivering the ball, is explained by the same reasoning. Thus suppose the ball is delivered in a direction lying in a vertical plane containing the two middle stumps of the wickets. A spin round a horizontal axis parallel to the crease in a direction which the bowler's umpire would describe as positive, namely, counter clock-wise, will, in consequence of the friction of the air, cause it to drop, and therefore decrease the length of the pitch. A spin in the opposite direction will cause it to rise, and therefore lengthen the pitch. A spin round a vertical axis in the positive direction, as viewed from above, will make it curl sideways in the air to the left, that is, from leg to off. A spin in the opposite direction will make it curl to the right. A spin given to the ball round the direction of motion of the centre of the ball will not sensibly affect the motion through the air, though it would cause the ball, on hitting the ground, to break. Of course these various kinds of spin can be combined. The questions involving the application of Hauksbee's Law are easy as compared with many of the problems in fluid

motion. The analysis required to attack most of these problems is beyond the scope of this book, but one of them may be worth mentioning even though no explanation is given. The Theory of the Flight of Birds. A mechanical problem of great interest is the explanation of the means by which birds are enabled to fly for considerable distances with no (perceptible) motion of the wings. Albatrosses, to take an instance of special difficulty, have been known to follow for some days ships running at the rate of nine or ten knots, and sometimes for considerable periods there is no motion of the wings or body which can be detected, while even if the bird moved its wings it is not easy to understand how it has the muscular energy to propel itself so rapidly and for such a length of time. Of this phenomenon 86 MECHANICAL RECREATIONS. [CH. III various explanations* have been suggested. Notable among these are Mr Maxim's of upward air-currents, Lord Rayleigh's of variations of the wind velocity at different heights above the ground, Dr S.P. Langley's of the incessant occurrence of gusts of wind separated by lulls, and Dr Bryan's of vortices in the atmosphere. It now seems reasonably certain that the second and third of these sources of energy account for at least a portion of the observed phenomena. The effect of the third cause may be partially explained by noting that the centre of gravity of the bird with extended wings is slightly below the aeroplane or wing surface, so that the animal forms a sort of parachute. The effect of a sudden gust of wind upon such a body is that the aeroplane is set in motion more rapidly than the suspended mass, causing the structure to heel over so as to receive the wind on the under surface of the aeroplane, and this lifts the suspended mass giving it an upward velocity. When the wind falls the greater inertia of the mass carries it on upwards causing the aeroplane to again present its under side to the air; and if while the parachute is in this position the wind is still blowing from the side, the suspended mass is again lifted. Thus the more the bird is blown about, the more it rises in the air; actually birds in flight are carried up by a sudden side gust of wind as we should expect from this theory. The fact that the bird is in motion tends also to keep it up, for it has been recently shown that a horizontal plane under the action of gravity falls to the ground more slowly if it is travelling through the air with horizontal velocity than it would do if allowed to fall vertically, hence the bird's forward motion causes it to fall through a smaller height between successive gusts of wind than it would do if it were at rest, Moreover it has been proved experimentally that the horsepower required to support a body in horizontal flight by means of an aeroplane is less for high than for low speeds: hence when a side-wind (that is, a wind at right angles to the bird's course) strikes the bird, the lift is increased in consequence of the bird's forward velocity. Curiosa Physica. When I was writing the first edition of these "Recreations," I put together a chapter, following this one, on "Some Physical Questions," dealing with problems such as, in the Theory of * See G.H. Bryan in the Transactions of the British Association for 1896, vol. lxvi, pp.

726-728. CH. III] CURIOSA PHYSICA. 87 Sound, the explanation of the fact that in some of Captain Parry's experiments the report of a cannon, when fired, travelled so much more rapidly than the sound of the human voice that observers heard the report of the cannon when fired before that of the order to fire it* : in the Kinetic Theory of Gases, the complications in our universe that might be produced by "Maxwell's demon" † : in the Theory of Optics, the explanation of the Japanese "magic mirrors," ‡ which reflect the pattern on the back of the mirror (on which the light does not fall): to which I might add the theory of the "spectrum top," by means of which a white surface, on which some black lines are drawn, can be moved so as to give the impression§ that the lines are coloured (red, green, blue, slate, or drab), and the curious fact that the colours change with the direction of rotation: it has also been recently shown that if two trains of waves, whose lengths are in the ratio m − 1 : m + 1, be superposed, then every mth wave in the system will be big—thus the current opinion that every ninth wave in the open sea is bigger than the other waves may receive scientific confirmation. There is no lack of interesting and curious phenomena in physics, and in some branches, notably in electricity and magnetism, the difficulty is rather one of selection, but I felt that the connection with mathematics was in general either too remote or too technical to justify the insertion of such a collection in a work on elementary mathematical recreations, and therefore I struck out the chapter. I mention the fact now partly to express the hope that some physicist will one day give us a collection of the kind, partly to suggest these questions to those who are interested in such matters. * The fact is well authenticated. Mr Earnshaw (Philosophical Transactions, London, 1860, pp. 133–148) explained it by the acceleration of a wave caused by the formation of a kind of bore, a view accepted by Clerk Maxwell and most physicists, but Sir George Airy thought that the explanation was to be found in physiology; see Airy's Sound, second edition, London, 1871, pp. 141, 142. † See Theory of Heat, by J. Clerk Maxwell, second edition, London, 1872, p. 308. ‡ See a memoir by W.E. Ayrton and J. Perry, Proceedings of the Royal Society of London, part i, 1879, vol. xxviii, pp. 127–148. § See letters from Mr C.E. Benham and others in Nature, 1894–5; and a memoir by Prof. Liveing, Cambridge Philosophical Society, November 26, 1894. CHAPTER IV. SOME MISCELLANEOUS QUESTIONS. I propose to discuss in this chapter the mathematical theory of certain of the more common mathematical amusements and games. Some of these might have been treated in the first two chapters, but, since most of them involve mixed geometry and algebra, it is rather more convenient to deal with them apart from the problems and puzzles which have been described already. This division, however, is by no means well defined, and the arrangement is based on convenience rather than on any logical distinction. The majority of the questions here enumerated have no connection one with another, and I jot them down almost at random. I shall discuss in succession the

Fifteen Puzzle, the Tower of Hanoï, Chinese Rings, the Eight Queens Problem, the Fifteen School-Girls Problem, and some miscellaneous Problems connected with a pack of cards. The Fifteen Puzzle† . Some years ago the so-called fifteen puzzle was on sale in all toy-shops. It consists of a shallow wooden box—one side being marked as the top—in the form of a square, and contains fifteen square blocks or counters numbered 1, 2, 3 . . . up to 15. The box will hold just sixteen such counters, and, as it contains only fifteen, they can be moved about in the box relatively to one another. Initially they are put in the box in any order, but leaving the sixteenth † There are two articles on the subject in the American Journal of Mathematics 1879, vol. ii, by Professors Woolsey Johnson and Story; but the whole theory is deducible immediately from the proposition I give above in the text. 88 CH. IV] THE FIFTEEN PUZZLE. 89 cell or small square empty; the puzzle is to move them so that finally they occupy the position shown in the first of the annexed figures. 12 3 4 5 6 7 8 9 10 11 12 13 14 15 AB CD Bottom of Box Top of Box 214 3 6 5 8 7 10 9 12 11 13 14 15 We may represent the various stages in the game by supposing that the blank space, occupying the sixteenth cell, is moved over the board, ending finally where it started. The route pursued by the blank space may consist partly of tracks followed and again retraced, which have no effect on the arrangement, and partly of closed paths travelled round, which necessarily are cyclical permutations of an odd number of counters. No other motion is possible. Now a cyclical permutation of n letters is equivalent to n−1 simple interchanges; accordingly an odd cyclical permutation is equivalent to an even number of simple interchanges. Hence, if we move the counters so as to bring the blank space back into the sixteenth cell, the new order must differ from the initial order by an even number of simple interchanges. If therefore the order we want to get can be obtained from this initial order only by an odd number of interchanges, the problem is incapable of solution; if it can be obtained by an even number, the problem is possible. Thus the order in the second of the diagrams given on the current page is deducible from that in the first diagram by six interchanges; namely, by interchanging the counters 1 and 2, 3 and 4, 5 and 6, 7 and 8, 9 and 10, 11 and 12. Hence the one can be deduced from the other by moving the counters about in the box. If however in the second diagram the order of the last three counters had been 13, 15, 14, then it would have required seven interchanges of 90 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV counters to bring them into the order given in the first diagram. Hence in this case the problem would be insoluble. The easiest way of finding the number of simple interchanges necessary in order to obtain one given arrangement from another is to make the transformation by a series of cycles. For example, suppose that we take the counters in the box in any definite order, such as taking the successive rows from left to right, and suppose the original order and the final order to be respectively 1, 13, 2, 3, 5, 7, 12, 8, 15, 6, 9, 4, 11, 10, 14, and 11, 2, 3, 4, 5,

6, 7, 1, 9, 10, 13, 12, 8, 14, 15. We can deduce the second order from the first by 12 simple interchanges. The simplest way of seeing this is to arrange the process in three separate cycles as follows:— 1, 11, 8 ; 13, 2, 3, 4, 12, 7, 6, 10, 14, 15, 9 ; 5. 11, 8, 1 ; 2, 3, 4, 12, 7, 6, 10, 14, 15, 9, 13 ; 5. Thus, if in the first row of figures 11 is substituted for 1, then 8 for 11, then 1 for 8, we have made a cyclical interchange of 3 numbers, which is equivalent to 2 simple interchanges (namely, interchanging 1 and 11, and then 1 and 8). Thus the whole process is equivalent to one cyclical interchange of 3 numbers, another of 11 numbers, and another of 1 number. Hence it is equivalent to (2 + 10 + 0) simple interchanges. This is an even number, and thus one of these orders can be deduced from the other by moving the counters about in the box. It is obvious that, if the initial order is the same as the required order except that the last three counters are in the order 15, 14, 13, it would require one interchange to put them in the order 13, 14, 15; hence the problem is insoluble. If however the box is turned through a right angle, so as to make AD the top, this rotation will be equivalent to 13 simple interchanges. For, if we keep the sixteenth square always blank, then such a rotation would change any order such as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, to 13, 9, 5, 1, 14, 10, 6, 2, 15, 11, 7, 3, 12, 8, 4, which is equivalent to 13 simple interchanges. Hence it will change the arrangement from one in which a solution is impossible to one where it is possible, and vice versa. CH. IV] THE TOWER OF HANOÏ. 91 Again, even if the initial order is one which makes a solution impossible, yet if the first cell and not the last is left blank it will be possible to arrange the fifteen counters in their natural order. For, if we represent the blank cell by b, this will be equivalent to changing the order 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, b, b, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 : this is a cyclical interchange of 16 things and therefore is equivalent to 15 simple interchanges. Hence it will change the arrangement from one in which a solution is impossible to one where it is possible, and vice versa. It is evident that the above principles are applicable equally to a rectangular box containing mn cells or spaces and mn − 1 counters which are numbered. Of course m may be equal to n. If such a box is turned through a right angle, and m and n are both even, it will be equivalent to mn − 3 simple interchanges—and thus will change an impossible position to a possible one, and vice versa—but unless both m and n are even the rotation is equivalent to only an even number of interchanges. Similarly, if either m or n is even, and it is impossible to solve the problem when the last cell is left blank, then it will be possible to solve it by leaving the first cell blank. The problem may be made more difficult by limiting the possible movements by fixing bars inside the box which will prevent the movement of a counter transverse to their directions. We can conceive also of a similar cubical puzzle, but we could not work it practically except by sections. The Tower of Hanoï. I may mention next the ingenious puzzle known as the Tower of Hanoï. It was brought out in 1883 by M. Claus

(Lucas). It consists of three pegs fastened to a stand, and of eight circular discs of wood or cardboard each of which has a hole in the middle so that a peg can be put through it. These discs are of different radii, and initially they are placed all on one peg, so that the biggest is at the bottom, and the radii of the successive discs decrease as we ascend: thus the smallest disc is at the top. This arrangement is called the Tower. The problem is to shift the discs from one peg to another in such a way that a disc shall never rest on one smaller than itself, and 92 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV finally to transfer the tower (i.e. all the discs in their proper order) from the peg on which they initially rested to one of the other pegs. The method of effecting this is as follows. (i) If initially there are n discs on the peg A, the first operation is to transfer gradually the top n − 1 discs from the peg A to the peg B, leaving the peg C vacant: suppose that this requires x separate transfers. (ii) Next, move the bottom disc to the peg C. (iii) Then, reversing the first process, transfer gradually the n − 1 discs from B to C, which will necessitate x transfers. Hence, if it requires x transfers of simple discs to move a tower of n − 1 discs, then it will require 2x + 1 separate transfers of single discs to move a tower of n discs. Now with 2 discs it requires 3 transfers, i.e. 2 2−1 transfers; hence with 3 discs the number of transfers required will be 2(22 −1) + 1, that is, 2 3 −1. Proceeding in this way we see that with a tower of n discs it will require 2 n − 1 transfers of single discs to effect the complete transfer. Thus the eight discs of the puzzle will require 255 single transfers. The result can be also obtained by the theory of finite differences. It will be noticed that every alternate move consists of a transfer of the smallest disc from one peg to another, the pegs being taken in cyclical order. M. De Parville gives an account of the origin of the toy which is a sufficiently pretty conceit to deserve repetition* . In the great temple at Benares, says he, beneath the dome which marks the centre of the world, rests a brass-plate in which are fixed three diamond needles, each a cubit high and as thick as the body of a bee. On one of these needles, at the creation, God placed sixty-four discs of pure gold, the largest disc resting on the brass plate, and the others getting smaller and smaller up to the top one. This is the Tower of Bramah. Day and night unceasingly the priests transfer the discs from one diamond needle to another according to the fixed and immutable laws of Bramah, which require that the priest must not move more than one disc at a time and that he must place this disc on a needle so that there is no smaller disc below it. When the sixty-four discs shall have been thus transferred from the needle on which at the creation God placed them to one of the other needles, tower, temple, and Brahmins alike will crumble into dust, and with a thunder-clap the world will vanish. Would that English writers were in the habit of inventing equally interesting origins for the puzzles they produce! * La Nature, Paris, 1884, part i, pp. 285–286. CH. IV] CHINESE RINGS. 93 The number of separate transfers of single discs which the Brahmins must make to effect the transfer of the

tower is 2 64 − 1, that is, is 18, 446744, 073709, 551615: a number which, even if the priests never made a mistake, would require many thousands of millions of years to carry out. Chinese Rings* . A somewhat more elaborate toy, known as Chinese Rings, which is on sale in most English toy-shops, is represented in the accompanying figure. It consists of a number of rings hung upon a bar in such a manner that the ring at one end (say A) can be taken off or put on the bar at pleasure; but any other ring can be taken off or put on only when the one next to it towards A is on, and all the rest towards A are off the bar. The order of the rings cannot be changed. Only one ring can be taken off or put on at a time. [In the toy, as usually sold, the first two rings form an exception to the rule. Both these can be taken off or put on together. To simplify the discussion I shall assume at first that only one ring is taken off or put on at a time.] I proceed to show that, if there are n rings, then in order to * It was described by Cardan in 1550 in his De Subtilitate, bk. xv, paragr. 2, ed. Sponius, vol. iii, p. 587; by Wallis in his Algebra, second edition, 1693, Opera, vol. ii, chap. 111, pp. 472–478; and allusion is made to it also in Ozanam's Récréations, 1723 edition, vol. iv, p. 439. 94 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV disconnect them from the bar, it will be necessary to take a ring off or to put a ring on either 1 3 (2n+1 −1) times or 1 3 (2n+1 −2) times according as n is odd or even. Let the taking a ring off the bar or putting a ring on the bar be called a step. It is usual to number the rings from the free end A. Let us suppose that we commence with the first m rings off the bar and all the rest on the bar; and suppose that then it requires x − 1 steps to take off the next ring, that is, it requires x − 1 additional steps to arrange the rings so that the first m + 1 of them are off the bar and all the rest are on it. Before taking these steps we can take off the (m + 2)th ring and thus it will require x steps from our initial position to remove the (m + 1)th and (m + 2)th rings. Suppose that these x steps have been made and that thus the first m + 2 rings are off the bar and the rest on it, and let us find how many additional steps are now necessary to take off the (m + 3)th and (m + 4)th rings. To take these off we begin by taking off the (m + 4)th ring: this requires 1 step. Before we can take off the (m+ 3)th we must arrange the rings so that the (m + 2)th is on and the first m + 1 rings are off: to effect this, (i) we must get the (m + 1)th ring on and the first m rings off, which requires x − 1 steps, (ii) then we must put on the (m + 2)th ring, which requires 1 step, (iii) and lastly we must take the (m + 1)th ring off, which requires x − 1 steps: thus this series of movements requires in all {2(x − 1) + 1} steps. Next we can take the (m + 3)th ring off, which requires 1 step; this leaves us with the first m + 1 rings off, the (m + 2)th on, the (m + 3)th off and all the rest on. Finally to take off the (m + 2)th ring, (i) we get the (m + 1)th ring on and the first m rings off, which requires x − 1 steps, (ii) we take off the (m + 2)th ring, which requires 1 step, (iii) we take (m + 1)th ring off, which requires x − 1 steps: thus this series of movements requires {2(x − 1) + 1} steps. Therefore, if when the first m rings are off it

requires x steps to take off the (m + 1)th and (m + 2)th rings, then the number of additional steps required to take off the (m + 3)th and (m + 4)th rings is 1 + {2(x − 1) + 1} + 1 + {2(x − 1) + 1}, that is, is 4x. To find the whole number of steps necessary to take off an odd number of rings we proceed as follows. To take off the first ring requires 1 step; ∴ to take off the first 3 rings requires 4 additional steps; ∴ " " 5 " " 4 2 " " . CH. IV] CHINESE RINGS. 95 In this way we see that the number of steps required to take off the first 2n + 1 rings is 1 + 4 + 42 + · · · + 4n , which is equal to 1 3 (22n+2 − 1). To find the number of steps necessary to take off an even number of rings we proceed in a similar manner. To take off the first 2 rings requires 2 steps; ∴ to take off the first 4 rings requires 2 × 4 additional steps; ∴ " " 6 " " 2 × 4 2 " " . In this way we see that the number of steps required to take off the first 2n rings is 2 + (2 × 4) + (2 × 4 2) + · · · + (2 × 4 n−1), which is equal to 1 3 (22n+1 − 2). If we take off or put on the first two rings in one step instead of two separate steps, these results become respectively 2 2n and 2 2n−1 −1. I give the above analysis because it is the direct solution of a problem attacked by Cardan in 1550 and by Wallis in 1693—in both cases unsuccessfully—and which at one time attracted some attention. I proceed next to give another solution, more elegant though rather artificial. This solution, which is due to M. Gros* , depends on a convention by which any position of the rings is denoted by a certain number expressed in the binary scale of notation in such a way that a step is indicated by the addition or subtraction of unity. Let the rings be indicated by circles: if a ring is on the bar, it is represented by a circle drawn above the bar; if the ring is off the bar, it is represented by a circle below the bar. Thus figure i below represents a set of seven rings of which the first two are off the bar, the next three are on it, the sixth is off it, and the seventh is on it. Denote the rings which are on the bar by the digits 1 or 0 alternately, reckoning from left to right, and denote a ring which is off the bar by the digit assigned to that ring on the bar which is nearest to it on the left of it, or by a 0 if there is no ring to the left of it. Thus the three positions indicated below are denoted respectively by the numbers written below them. The position represented in figure ii is obtained from that in figure i by putting the first ring on to the bar, while the position represented in figure iii is obtained from that in figure i by taking the fourth ring off the bar. It follows that every position of the rings is denoted by a number expressed in the binary scale: moreover, since in going from left to right * Théorie du Baguenodier, by L. Gros, Lyons, 1872. I take the account of this from Lucas, vol. i, part 7. 96 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV ¶ ¶ ¶ ¶ ¶ ¶ ¶ 1101000 Figure i. ¶ ¶ ¶ ¶ ¶ ¶ ¶ 1101001 Figure ii. ¶ ¶ ¶ ¶ ¶ ¶ ¶ 1100111 Figure iii. every ring on the bar gives a variation (that is, 1 to 0 or 0 to 1) and every ring off the bar gives a continuation, the effect of a step by which a ring is taken off or put on the bar is either to subtract unity from this number or to add unity to it. For example, the number denoting the position of the rings in figure ii is obtained from the number

denoting that in figure i by adding unity to it. Similarly the number denoting the position of the rings in figure iii is obtained from the number denoting that in figure i by subtracting unity from it. The position when all the seven rings are off the bar is denoted by the number 0000000: when all of them are on the bar by the number 1010101. Hence to change from one position to the other requires a number of steps equal to the difference between these two numbers in the binary scale. The first of these numbers is 0: the second is equal to 2 6 + 24 + 22 + 1, that is, to 85. Therefore 85 steps are required. In a similar way we may show that to put on a set of 2n + 1 rings requires (1 + 21 + 22 + . . . + 22n) steps, that is, 1 3 (22n+2 − 1) steps; and to put on a set of 2n rings requires (2 + 23 + . . . + 22n−1) steps, that is, 1 3 (2n+1 − 2) steps. I append a table indicating the steps necessary to take off the first four rings from a set of five rings. The diagrams in the middle column show the successive position of the rings after each step. The number following each diagram indicates that position, each number being obtained from the one above it by the addition of unity. The steps which are bracketed together can be made in one movement, and, if thus effected, the whole process is completed in 7 movements instead of 10 steps: this is in accordance with the formula given above. M. Gros asserted that it is possible to take from 64 to 80 steps a minute, which in my experience is a rather high estimate. If we accept the lower of these numbers, it would be possible to take off 10 rings in less than 8 minutes; to take off 25 rings would require more than 582 days, each of ten hours work; and to take off 60 rings would CH. IV] THE EIGHT QUEENS PROBLEM. 97 Initial position ” ” ” ” ” 10101 After 1st step ” ” ” ” ” 10110 } " 2nd " ” ” ” ” ” 10111 " 3rd " ” ” ” ” ” 11000 " 4th " ” ” ” ” ” 11001 } " 5th " ” ” ” ” ” 11010 " 6th " ” ” ” ” ” 11011 " 7th " ” ” ” ” ” 11100 " 8th " ” ” ” ” ” 11101 " 9th " ” ” ” ” ” 11110 } " 10th " ” ” ” ” ” 11111 necessitate no less than 768614, 336404, 564650 steps, and would require nearly 55000, 000000 years work—assuming of course that no mistakes were made. The Eight Queens Problem* . The determination of the number of ways in which eight queens can be placed on a chessboard—or more generally, in which n queens can be placed on a board of n 2 cells—so that no queen can take any other was proposed originally by Nauck in 1850. In 1874 Dr S. Günther† suggested a method of solution by means of determinants. For, if each symbol represents the corresponding cell of the board, the possible solutions for a board of n 2 cells are given by * On the history of this problem see W. Ahrens, Mathematische Unterhaltungen und Spiele, Leipzig, 1901, chap. ix—a work issued subsequent to the third edition of this book. † Grunert's Archiv der Mathematik und Physik, 1874, vol. lvi pp. 281–292. 98 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV those terms, if any, of the determinant a1 b2 c3 d4 . . . . β2 a3 b4 c5 . . . . . γ3 β4 a5 b6 . . . . . δ4 γ5 β6 a7 . . . . . a2n−3 b2n−2 . . . . . β2n−2 a2n−1 in which no letter

and no suffix appears more than once. The reason is obvious. Every term in a determinant contains one and only one element out of every row and out of every column: hence any term will indicate a position on the board in which the queens cannot take one another by moves rook-wise. Again in the above determinant the letters and suffixes are so arranged that all the same letters and all the same suffixes lie along bishop's paths: hence, if we retain only those terms in each of which all the letters and all the suffixes are different, they will denote positions in which the queens cannot take one another by moves bishop-wise. It is clear that the signs of the terms are immaterial. In the case of an ordinary chess-board the determinant is of the 8th order, and therefore contains 8!, that is, 40320 terms, so that it would be out of the question to use this method for the usual chess-board of 64 cells or for a board of larger size unless some way of picking out the required terms could be discovered. A way of effecting this was suggested by Dr J.W.L. Glaisher* in 1874, and as far as I am aware the theory remains as he left it. He showed that if all the solutions of n queens on a board of n 2 cells were known, then all the solutions of a certain type for n + 1 queens on a board of (n+1)2 cells could be deduced, and that all the other solutions of n + 1 queens on a board of (n + 1)2 cells could be obtained without difficulty. The method will be sufficiently illustrated by one instance of its application. It is easily seen that there are no solutions when n = 2 and n = 3. If n = 4 there are two terms in the determinant which give solutions, namely, b2c5γ3β6 and c3β2b6γ5. To find the solutions when n = 5, * Philosophical Magazine, London, December, 1874, series 4, vol. xlviii, pp. 457– 467. CH. IV] THE EIGHT QUEENS PROBLEM. 99 Glaisher proceeded thus. In this case Günther's determinant is a1 b2 c3 d4 e5 β2 a3 b4 c5 d6 γ3 β4 a5 b6 c7 δ4 γ5 β6 a7 b8 ε5 δ6 γ7 β8 a9 To obtain those solutions (if any) which involve a9 it is sufficient to append a9 to such of the solutions for a board of 16 cells as do not involve a. As neither of those given above involves an a we thus get two solutions, namely, b2c5γ3β6a9 and c3β2b6γ5a9. The solutions which involve a1, e5 and ε5 can be written down by symmetry. The eight solutions thus obtained are all distinct; we may call them of the first type. The above are the only solutions which can involve elements in the corner squares of the determinant. Hence the remaining solutions are obtainable from the determinant 0 b2 c3 d4 0 β2 a3 b4 c5 d6 γ3 β4 a5 b6 c7 δ4 γ5 β6 a7 b8 0 δ6 γ7 β8 0 If, in this, we take the minor of b2 and in it replace by zero every term involving the letter b or the suffix 2 we shall get all solutions involving b2. But in this case the minor at once reduces to d6a5δ4β8. We thus get one solution, namely, b2d6a5δ4β8. The solutions which involve β2, δ4, δ6, β8, b8, d6, and d4 can be obtained by symmetry. Of these eight solutions it is easily seen that only two are distinct: these may be called solutions of the second type. Similarly the remaining solutions must be obtained from the determinant 0 0 c3 0 0 0 a3 b4 c5 0 γ3 β4 a5 b6 c7 0 γ5 β6 a7 0 0 0 γ7 0 0 If, in this, we take

the minor of c3, and in it replace by zero every term involving the letter c or the suffix 3, we shall get all the solutions 100 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV which involve c3. But in this case the minor vanishes. Hence there is no solution involving c3, and therefore by symmetry no solutions which involve γ3, γ7, or c3. Had there been any solutions involving the third element in the first or last row or column of the determinant we should have described them as of the third type. Thus in all there are ten and only ten solutions, namely, eight of the first type, two of the second type, and none of the third type. Similarly, if n = 6, we obtain no solutions of the first type, four solutions of the second type, and no solutions of the third type; that is, four solutions in all. If n = 7, we obtain sixteen solutions of the first type, twenty-four solutions of the second type, no solutions of the third type, and no solutions of the fourth type; that is, forty solutions in all. If n = 8, we obtain sixteen solutions of the first type, fifty-six solutions of the second type, and twenty solutions of the third type, that is, ninety-two solutions in all. It will be noticed that all the solutions of one type are not always distinct. In general, from any solution seven others can be obtained at once. Of these eight solutions, four consist of the initial or fundamental solution and the three similar ones obtained by turning the board through one, two, or three right angles; the other four are the reflexions of these in a mirror: but in any particular case it may happen that the reflexions reproduce the originals, or that a rotation through one or two right angles makes no difference. Thus on boards of 4 2 , 5 2 , 6 2 , 7 2 , 8 2 , 9 2 , 102 cells there are respectively 1, 2, 1, 6, 12, 46, 92 fundamental solutions; while altogether there are respectively 2, 10, 4, 40, 92, 352, 724 solutions. The following collection of fundamental solutions may interest the reader. The positions on the board of the queens are indicated by digits: the first digit represents the number of the cell occupied by the queen in the first column reckoned from one end of the column, the second digit the number in the second column, and so on. Thus on a board of 4 2 cells the solution 3142 means that one queen is on the 3rd square of the first column, one on the 1st square of the second column, one on the 4th square of the third column, and one on the 2nd square of the fourth column. If a fundamental solution gives rise to only four solutions the number which indicates it is placed in curved brackets, ( ); if it gives rise to only two solutions the number which indicates it is placed in square brackets, [ ]; the other fundamental solutions give rise CH. IV] THE EIGHT QUEENS PROBLEM. 101 to eight solutions each. On a board of 4 2 cells there is 1 fundamental solution: namely, [3142]. On a board of 5 2 cells there are 2 fundamental solutions: namely, 14253, [25314]. On a board of 6 2 cells there is 1 fundamental solution: namely, (246135). On a board of 7 2 cells there are 6 fundamental solutions: namely, 1357246, 3572461, (5724613), 4613572, 3162574, (2574136). On a board of 8 2 cells there are 12 fundamental solutions: namely, 25713864, 57138642, 71386425, 82417536, 68241753, 36824175,

64713528, 36814752, 36815724, 72418536, 26831475, (64718253). The arrangement in this order is due to Mr Oram. It will be noticed that the 10th, 11th, and 12th solutions somewhat resemble the 4th, 6th, and 7th respectively. The 6th solution is the only one in which no three queens are in a straight line. On a board of 9 2 cells there are 46 fundamental solutions; one of them is 248396157. On a board of 102 cells there are 92 fundamental solutions; these were given by Dr A. Pein* ; one of them is 2468t13579, where t stands for ten. On a board of 112 cells there are 341 fundamental solutions; these have been given by Dr T.B. Sprague† : one of them is 15926t37e48. I may add that for a board of n 2 cells there is always a symmetrical solution of the form 246 . . . n135 . . .(n−1), when n = 6m or n = 6m + 4, Also Mr Oram has shown that for a board of n 2 cells, when n is a prime, cyclical arrangements of the n natural numbers, other than in their natural order, will give solutions; see, for instance, the solution quoted above. The puzzle in the form of a board of 36 squares is sold in the streets of London for a penny, a small wooden board being ruled in the manner shown in the diagram and having holes drilled in it at the points marked by dots. The object is to put six pins into the holes so that no two are connected by a straight line. * Aufstellung von n Königinnen auf einem Schachbrett von n 2 Feldern, Leipzig, 1889. † Proceedings of the Edinburgh Mathematical Society, vol. xvii, 1898–9, pp. 43–68. 102 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV Other Problems with Queens. Captain Turton called my attention to two other problems of a somewhat analogous character, neither of which, as far as I know, has been published elsewhere, or solved otherwise than empirically. The first of these is to place eight queens on a chess-board so as to command the fewest possible squares. Thus, if queens are placed on cells 1 and 2 of the second column, on cell 2 of the sixth column, on cells 1, 3, and 7 of the seventh column, and on cells 2 and 7 of the eighth column, eleven cells on the board will not be in check; the same number can be obtained by other arrangements. Is it possible to place the eight queens so as to leave more than eleven cells out of check? I have never succeeded in doing so, nor in showing that it is impossible to do it. The other problem is to place m queens (m being less than 5) on a chess-board so as to command as many cells as possible. For instance, four queens can be placed in several ways on the board so as to command 58 cells besides those on which the queens stand, thus leaving only 2 cells which are not commanded: ex. gr. this is effected if the queens are placed on cell 5 of the third column, cell 1 of the fourth column, cell 6 of the seventh column, and cell 2 of the eighth column; or on cell 1 of the first column, cell 7 of the third column, cell 3 of the fifth column, and cell 5 of the seventh column. A similar problem is to determine the minimum number and the position of queens which can be placed on a board of n 2 cells so as to occupy or command every cell. It would seem that, even with the additional restriction that no queen shall be able to take any other queen, there are no

less than ninety-one typical solutions in which five queens can be placed on a chess-board CH. IV] THE FIFTEEN SCHOOL-GIRLS PROBLEM. 103 so as to command every cell* . Extension to other Chess Pieces. Analogous problems may be proposed with other chess-pieces. For instance, questions as to the maximum number of knights which can be placed on a board of n 2 cells so that no knight can take any other, and the minimum number of knights which can be placed on it so as to occupy or command every cell have been propounded† . Similar problems have also been proposed for k kings placed on a chess-board of n 2 cells‡ . It has been asserted that, if k = 2, the number of ways in which two kings can be placed on a board so that they may not occupy adjacent squares is 1 2 (n − 1)(n − 2)(n 2 + 3n − 2). Similarly, if k = 3, the number of ways in which three kings can be placed on a board so that no two of them occupy adjacent squares is said to be 1 6 (n − 1)(n − 2)(n 4 + 3n 3 − 20n 2 − 30n + 132). The Fifteen School-Girls Problem. This problem— which was first enunciated by Mr T.P. Kirkman, and is sometimes known as Kirkman's problem§—consists in arranging fifteen things in different sets of triplets. It is usually presented in the form that a school-mistress was in the habit of taking her girls for a daily walk. * L'Intermédiaire des mathématiciens, Paris, 1901, vol. viii, p. 88. † Ibid., March, 1896, vol. iii, p. 58; 1897, vol. iv, p. 15, 254; and 1898, vol. v, p. 87. ‡ Ibid., June, 1901, p. 140. § It was published first in the Lady's and Gentleman's Diary for 1850, p. 48, and has been the subject of numerous memoirs. Among these I may single out the papers by A. Cayley in the Philosophical Magazine, July, 1850, series 3, vol. xxxvii, pp. 50–53; by T.P. Kirkman in the Cambridge and Dublin Mathematical Journal, 1850, vol. v, p. 260; by R.R. Anstice, Ibid., 1852, vol. vii, pp. 279–292; by B. Pierce, Gould's Journal, Cambridge, U.S., 1860, vol. vi, pp. 169–174; by T.P. Kirkman, Philosophical Magazine, March, 1862, series 4, vol. xxiii, pp. 198–204; by W.S.B. Woolhouse in the Lady's Diary for 1862, pp. 84–88, and for 1863, pp. 79–90, and in the Educational Times Reprints, 1867, vol. viii, pp. 76–83; by J. Power in the Quarterly Journal of Mathematics, 1867, vol. viii, pp. 236–251; by A.H. Frost, Ibid., 1871, vol. xi, pp. 26–37; by E. Carpmael in the Proceedings of the London Mathematical Society, 1881, vol. xii, pp. 148–156; by Lucas in his Récréations, vol. ii, part vi; by A.C. Dixon in the Messenger of Mathematics, Cambridge, October, 1893, vol. xxiii, pp. 88– 89; and by W. Burnside, Ibid., 1894, vol. xxiii, pp. 137–143. It has also, since the issue of my third edition, been discussed by W. Ahrens in his Mathematische Unterhaltungen und Spiele, Leipzig, 1901, chapter xiv. 104 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV The girls were fifteen in number, and were arranged in five rows of three each so that each girl might have two companions. The problem is to dispose them so that for seven consecutive days no girl will walk with any of her school-fellows more than once. More generally we may require to arrange 3m girls in triplets to walk out for 1 2 (3m − 1) days, so that no girl will walk with any of her school-fellows more than once. The theory of the

formation of all such possible triplets in the case of fifteen girls is not difficult, but the extension to 3m girls is, as yet, unsolved. I proceed to describe three methods of solution: these methods are analytical, but I may add that the problem can be also attacked by geometrical methods. Frost's Method. The first of these solutions is due to Mr Frost. A full exposition of it would occupy a good deal of space, but I hope that the following sketch will make the process intelligible. Denote one of the girls by k. Her companions on each day are different: suppose that on Sunday they are a1 and a2, on Monday b1 and b2, and so on, and finally on Saturday g1 and g2. Hence for each day we have one triplet, and we have to find four others, but in each of the latter no two like letters can occur together, that is, the three letters in any of them must be all different. Let a stand for a1, or a2, b for b1 or b2, and so on. The suffixes 1 and 2 are called complementary. Then, since the three letters in each of the triplets we are trying to find must be different, we must make some arrangement such as putting a with bc, de, and fg; and, if so, b may be associated with df and eg; and c with dg and ef. Thus there are seven possible triads, such as abc, ade, afg, bdf, beg, cdg, and cef. Moreover each of these may stand for any one of four triplets: for instance, the triad bdf may stand for any of the triplets b1d1f1, b1d2f2, b2d1f2, b2d2f1. The four triads which do not involve a must be placed in the Sunday column, the four which do not involve b in the Monday column, and so on. Thus each triad will occur four times. It only remains to insert the proper suffixes. This is done as follows. Take one triad, such as bdf, and insert a different set of suffixes each time that it occurs; for instance, the four sets given above. Next, the other like letters (b, d, or f as the case may be) in these four columns must have the complementary suffixes attached. After this is done, the next triplet in the Sunday column will be b2eg. The triad beg occurs in four columns and includes four possi- CH. IV] THE FIFTEEN SCHOOL-GIRLS PROBLEM. 105 ble triplets, such as b2e1g1, b2e2g2, b1e1g2, b1e2g1. Insert these, and then give the complementary suffixes to the other like letters in these four columns. In this way the arrangement is constructed gradually, by taking one triad at a time, inserting the proper suffixes to the four triplets included in it, and then the complementary suffixes in the other like letter in the same columns. One final arrangement, thus obtained, is as follows: Sunday Monday Tuesday Wednesday Thursday Friday Saturday ka1a2 kb1b2 kc1c2 kd1d2 ke1e2 kf1f2 kg1g2 b1d1f1 a1d2e2 a1d1e1 a2b2c2 a2b1c1 a1b2c1 a1b1c2 b2e1g1 a2f2g2 a2f1g1 a1f2g1 a1f1g2 a2d2e1 a2d1e2 c1d2g2 c1d1g1 b1d2f2 b1e1g2 b2d1f2 b1e2g1 b2d2f1 c2e2f2 c2e1f1 b2e2g2 c1e2f1 c2d2g1 c2d1g2 c1e1f2 We might obtain other solutions by selecting other seven triads or by choosing other arrangements of the suffixes in each triad (or by merely interchanging letters and suffixes in the above order). By these means Mr Power showed that there are no less than 15567, 552000 different solutions; but, since the total number of ways in which the school can walk out for a week in triplets is (455)7 , the probability

that any chance way satisfies Kirkman's condition is very small. Frost's method is applicable to the case of 2 2n −1 girls walking out for 2 2n−1 − 1 days in triplets. The detailed solution for 63 girls walking out for 31 days, which corresponds to n = 3, have been given. Anstice's Method. Another method of attacking the problem is due to Mr Anstice; it is illustrated by the following elegant solution, by which from the order on Sunday we can obtain the order on the following six days by a cyclical permutation. Let the girls be denoted respectively by the letters k, a1, a2, a3, a4, a5, a6, a7, b1, b2, b3, b4, b5, b6, b7; and suppose the order on Sunday to be ka1b1, a2a3a5, a4b3b6, a6b2b7, a7b4b5 . Then, if the suffixes are permuted cyclically, we obtain six other arrangements which satisfy the conditions of the problem: the reason being that in the above arrangement the difference of the suffixes of every pair of like letters—such as either the "a"s or the "b"s—in a triplet 106 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV is different for each triplet, as also is the difference of the suffixes of every pair of unlike letters which are in a triplet. Two other arrangements for Sunday, from which those for the remaining days are obtainable by cyclical permutations can be formed. These are ka1b1, a2a3a5, a4b5b7, a6b3b4, a7b2b6; and ka1b1, a2a3a5, a4b2b6, a6b5b7, a7b3b4. Anstice's method is applicable to the case of 2p + 1 girls walking out for p days in triplets so that no pair may walk together more than once, provided p is a prime of the form 12m + 7. In such a case he showed how to construct a fundamental arrangement for one day from which the arrangements for the remaining p − 1 days can be obtained by cyclical permutations of suffixes. The number of such fundamental arrangements is 3(2m + 1)(3m + 1). The problem of 15 girls corresponds to m = 0, and the three fundamental Anstician arrangements are given above. If m = 1 we have the problem of 39 girls. One Anstician arrangement in this case is as follows: ka1b1, a2a8a12, a5a7a10, a6a17a18, a3b10b15, a4b3b5, a9b18b19, a11b8b14, a13b9b17, a14b12b16, a15b4b7, a16b2b11, a19b6b13. If m = 2 we have the problem of 63 girls, of which Frost has given one solution; and so on. Gill's Method. Another method of attacking the problem has been suggested to me by Mr T.H. Gill. Representing the girls by a1, a2, a3, . . . , a3m he (i) forms one triplet of the type a1am+1a2m+1, from which, by cyclical permutation of the suffixes 1, 2, . . . , 3m he obtains m triplets which constitute an arrangement for one day, and (ii) forms 1 2 (m − 1) other triplets such that the three differences of the suffixes are different, from which, by cyclical permutations of the suffixes, the arrangements for the remaining 3 2 (m − 1) other days can be obtained. Thus in the case of 15 girls, the triplet a1a6a11 gives, by cyclical permutations of the suffixes, an arrangement for the first day and two triplets such as a1a2a5, a1a3a9 enable us to form 30 triplets from which an arrangement for the other six days can be found. Here is a solution thus determined. First Day: 1. 6.11; 2. 7.12; 3. 8.13; 4. 9.14; 5.10.15 . Second Day: 1. 2. 5; 3. 4. 7; 8. 9.12; 10.11.14; 13.15. 6 . Third Day: 2. 3. 6; 4. 5. 8;

9.10.13; 11.12.15; 14. 1. 7 . Fourth Day: 5. 6. 9; 7. 8.11; 12.13. 1; 14.15. 3; 2. 4.10 . Fifth Day: 7. 9.15; 8.10. 1; 3. 5.11; 4. 6.12; 13.14. 2 . Sixth Day: 9.11. 2; 10.12. 3; 5. 7.13; 6. 8.14; 15. 1. 4 . Seventh Day: 11.13. 4; 12.14. 5; 15. 2. 8; 1. 3. 9; 6. 7.10 . CH. IV] THE FIFTEEN SCHOOL-GIRLS PROBLEM. 107 But, although this method gives triplets with which the problem can be solved, the final arrangement is empirical. A solution of the problem of 21 girls for 10 days can be got by the same method: a1a8a15 giving 7 triplets which constitute an arrangement for one day; and a1a2a6, a1a3a11, a1a4a10 giving 63 triplets from which an arrangement for the other nine days can be formed. Here is the solution thus determined. First Day: 1. 8.15; 2. 9.16; 3.10.17; 4.11.18; 5.12.19; 6.13.20; 7.14.21 . Second Day: 1. 2. 6; 4. 5. 9; 7. 8.12; 10.11.15; 13.14.18; 16.17.21; 19.20. 3 . Third Day: 7.10.16; 8.11.17; 12.15.21; 18.19. 2; 20. 1. 9; 3. 5.13; 4. 6.14 . Fourth Day: 13.16. 1; 14.17. 2; 18.21. 6; 3. 4. 8; 5. 7.15; 9.11.19; 10.12.20 . Fifth Day: 4. 7.13; 5. 8.14; 9.12.18; 15.16.20; 17.19. 6; 21. 2.10; 1. 3.11 . Sixth Day; 1. 4.10; 2. 5.11; 6. 9.15; 12.13.17; 14.16. 3; 18.20. 7; 19.21. 8 . Seventh Day: 2. 3. 7; 5. 6.10; 8. 9.13; 11.12.16; 14.15.19; 17.18. 1; 20.21. 4 . Eighth Day: 10.13.19; 11.14.20; 15.18. 3; 21. 1. 5; 2. 4.12; 6. 8.16; 7. 9.17 . Ninth Day: 16.19. 4; 17.20. 5; 21. 3. 9; 6. 7.11; 8.10.18; 12.14. 1; 13.15. 2 . Tenth Day: 19. 1. 7; 20. 2. 8; 3. 6.12; 9.10.14; 11.13.21; 15.17. 4; 16.18. 5 . I should be interested if any of my readers could give me a similar solution of the analogous arrangement of 33 girls for 16 days formed from typical triplet suffixes like 1, 12, 23; 1, 2, 10; 1, 3, 16; 1, 4, 18; 1, 5, 11; 1, 6, 13; or from other sets of triplets formed in a similar way so that (except in the first triplet) the differences of the suffixes are all different. Walecki's Theorem. Lastly, Walecki—quoted by Lucas—has shown that, if a solution for the case of n girls walking out in triplets for 1 2 (n − 1) days is known, then a solution for 3n girls walking out for 1 2 (3n − 1) days can be deduced. For if an arrangement of the n girls, a1, a2, . . . , an for 1 2 (n−1) days is known; and also one of the n girls, b1, b2, . . . , bn; and also one of the n girls c1, c2, . . . , cn; then an arrangement of these 3n girls for 1 2 (n − 1) days is known. A set of n triplets for another day will be given by ambm+kcm+2k where m is put equal to 1, 2, . . . , n successively. Here k may have any of the n values, 0, 1, 2, . . . ,(n − 1); but, wherever a suffix is greater than n, it is to be divided by n and only the remainder retained. Hence altogether we have an arrangement for n + 1 2 (n − 1) days, i.e. for 1 2 (3n − 1) days. The arrangement of 3 girls for one day is obvious. Hence, by Walecki's theorem, we can deduce at once an arrangement of 3 m girls for 1 2 (3m − 1) days. And, generally, as I have given solutions of the problem in the case of 3n girls when n = 1, 3, 5, 7, 9, 13, 15, it follows 108 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV that for the same values of n, we can solve the analogous arrangements of 3 m × n girls. To the original theorem J.J. Sylvester* added the corollary that the school of 15 girls could walk out in triplets on 13 × 7 days until every possible triplet had walked abreast once. The generalized problem of finding the

greatest number of ways in which x girls walking in rows of a abreast can be arranged so that every possible combination of b of them may walk abreast once and only once has been solved for various cases. Suppose that this greatest number of ways is y. It is obvious that, if all the x girls are to walk out each day in rows of a abreast, then x must be an exact multiple of a and the number of rows formed each day is x/a. If such an arrangement can be made for z days, then we have a solution of the problem to arrange x girls to walk out in rows of a abreast for z days so that they all go out each day and so that every possible combination of b girls may walk together once, and only once. In the corresponding generalization of Kirkman's problem no companionship of girls which has occurred once may occur again, but it does not follow necessarily that every possible companionship must occur once. An example where the solution is obvious is if x = 2n, a = 2, b = 2, in which case y = n(2n − 1), z = 2n − 1. If we take the case x = 15, a = 3, b = 2, we find y = 35; and it happens that these 35 rows can be divided into 7 sets, each of which contains all the symbols; hence z = 7. More generally, if x = 5 × 3 m, a = 3, b = 2, we find y = 3 2 (x − 1)/x, z = 1 2 (x − 1). It will be noticed that in the solutions of the original fifteen school-girls problem and of Walecki's extension of it given above every possible pair of girls walk together once; hence we might infer that in these cases we could determine z as well as y. The results of the last paragraph were given by Kirkman† in 1850. In the same memoir he also proved that, if p is a prime, and if x = p m, a = p, b = 2, then y = (p m − 1)/(p − 1); if x = (p 2 + p + 1)(p + 1) where p 2 + p + 1 has no divisor less than p + 1, a = p + 1, b = 2, then y = x(x − 1)/p(p + 1); if x = p 3 + p + 1, a = p + 1, b = 2, then y = x; * Philosophical Magazine, July, 1850, series 3, vol. xxxvii, p. 52; a solution by Sylvester is given in the Philosophical Magazine, May, 1861, series 4, vol. xxi, p. 371. † Cambridge and Dublin Mathematical Journal, 1850, vol. v, pp. 255–262. CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 109 and Sylvester's result that if x = 15, a = 3, b = 3, y = 455, z = 91. Three years later Kirkman* solved the problem when x = 2n , a = 4, b = 3. Lastly, in 1893, Sylvester† published the solution when x = 9, a = 3, b = 3, in which case y = 84, z = 28; and stated that a similar method was applicable when x = 3m, a = 3, b = 3: thus 9 girls can be arranged to walk out 28 times (say 4 times a day for a week) so that in any day the same pair never are together more than once and so that at the end of the week each girl has been associated with every possible pair of her schoolfellows. In 1867 Mr S. Bills‡ showed that if x = 7, a = 3, b = 2, then y = 7: if x = 15, a = 3, b = 2, then y = 35: if x = 31, a = 3, b = 2, then y = 155: and the method by which these results are proved will give the value of y, if x = 2n − 1, a = 3, b = 2. Shortly afterwards Mr W. Lea§ showed that if x = 11, a = 5, b = 4, then y = 66; also that if x = 16, a = 4, b = 3, then y = 140; the latter result is a particular case of Kirkman's theorems. It will be noticed that these writers did not confine their discussion to cases where x is an exact multiple of a. Problems connected with a

Pack of Cards. I mentioned in chapter i that an ordinary pack of playing cards could be used to illustrate many tricks depending on simple properties of numbers. Most of these involve the relative position of the cards. The principle of solution generally consists in re-arranging the pack in a particular manner so as to bring the card into some definite position. Any such rearrangement is a species of shuffling. I shall treat in succession of problems connected with shuffling a pack, arrangements by rows and columns, the determination of a pair out of 1 2 n(n + 1) pairs, Gergonne's pile problem, and the game known as the mouse trap. Shuffling a Pack. Any system of shuffling a pack of cards, if carried out consistently, leads to an arrangement which can be calculated; but tricks that depend on it generally require considerable * Ibid., 1853, vol. viii, pp. 38–42. † Messenger of Mathematics, February, 1893, vol. xxii, pp. 159–160. ‡ Educational Times Reprints, London, 1867, vol. viii, pp. 32–33. § Ibid., 1868, vol. ix, pp. 35–36; and 1874, vol. xxii, pp. 74–76; see also the volume for 1869, vol. xi, p. 97. 110 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV technical skill. Suppose for instance that a pack of n cards is shuffled, as is not unusual, by placing the second card on the first, the third below these, the fourth above them, and so on. The theory of this system of shuffling is due to Monge* . The following are some of the results and are not difficult to prove directly. If the pack contains 6p + 4 cards, the (2p + 2)th card will occupy the same position in the shuffled pack. For instance, if a complete pack of 52 cards is shuffled as described above, the 18th card will remain the 18th card. Again, if a pack of 10p+2 cards is shuffled in this way, the (2p+1)th and the (6p × 2)th cards will interchange places. For instance, if an écarté pack of 32 cards is shuffled as described above, the 7th and the 20th cards will change places. More generally, one shuffle of a pack of 2p cards will move the card which was in the x0th place to the x1th place, where x1 = 1 2 (2p+x0+1) if x0 is odd, and x1 = 1 2 (2p − x0 + 2) if x0 is even, from which the above results can be deduced. By repeated applications of the above formulae we can show that the effect of m such shuffles is to move the card which was initially in the x0th place to the xmth place where 2 m+1xm = (4p + 1)(2m−1 ± 2 m−2 ± · · · ± 2 ± 1) ± 2x0 + 2m ± 1, the sign ± representing an ambiguity of sign. Again, in any pack of n cards after a certain number of shufflings, not greater than n, the cards will return to their primitive order. This will always be the case as soon as the original top card occupies that position again. To determine the number of shuffles required for a pack of 2p cards, it is sufficient to put xm = x0 and find the smallest value of m which satisfies the resulting equation for all values of x0 from 1 to 2p. It follows that, if m is the least number which makes 4 m − 1 divisible by 4p + 1, then m shuffles will be required if either 2 m + 1 or 2 m − 1 is divisible by 4p+ 1, otherwise 2m shuffles will be required. The number * Monge's investigations are printed in the Mémoires de l'Académie des Sciences, Paris, 1773, pp. 390–412. Among those who have studied the subject afresh I may in particular

mention V. Bouniakowski, Bulletin physico-mathématique de St Pétersbourg, 1857, vol. xv, pp. 202–205, summarised in the Nouvelles annales de mathématiques, 1858, pp. 66–67; T. de St Laurent, Mémoires de l'Académie de Gard, 1865; L. Tanner, Educational Times Reprints, 1880, vol. xxxiii, pp. 73– 75; and M.J. Bourget, Liouville's Journal, 1882, pp. 413–434. The solutions given by Prof. Tanner are simple and concise. CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 111 for a pack of 2p+1 cards is the same as that for a pack of 2p cards. With an écarté pack of 32 cards, six shuffles are sufficient; with a pack of 2 n cards, n + 1 shuffles are sufficient; with a full pack of 52 cards, twelve shuffles are sufficient; with a pack of 13 cards ten shuffles are sufficient; while with a pack of 50 cards fifty shuffles are required; and so on. Mr W.H.H. Hudson* has also shown that, whatever is the law of shuffling, yet if it is repeated again and again on a pack of n cards, the cards will ultimately fall into their initial positions after a number of shufflings not greater than the greatest possible l.c.m. of all numbers whose sum is n. For suppose that any particular position is occupied after the 1st, 2nd, . . . , pth shuffles by the cards A1, A2, . . . , Ap respectively, and that initially the position is occupied by the card A0. Suppose further that after the pth shuffle A0 returns to its initial position, therefore A0 = Ap. Then at the second shuffling A2 succeeds A1 by the same law by which A1 succeeded A0 at the first; hence it follows that previous to the second shuffling A2 must have been in the place occupied by A1 previous to the first. Thus the cards which after the successive shuffles take the place initially occupied by A1 are A2, A3, . . . , Ap, A1; that is, after the pth shuffle A1 has returned to the place initially occupied by it: and so for all the other cards A2, A3, . . . , Ap−1. Hence the cards A1, A2, . . . , Ap form a cycle of p cards, one or other of which is always in one or other of p positions in the pack, and which go through all their changes in p shufflings. Let the number n of the pack be divided into p, q, r, . . . such cycles, whose sum is n; then the l.c.m. of p, q, r, . . . is the utmost number of shufflings necessary before all the cards will be brought back to their original places. In the case of a pack of 52 cards, the greatest l.c.m. of numbers whose sum is 52 will be found by trial to be 180180. Arrangements by Rows and Columns. A not uncommon trick, which rests on a species of shuffling, depends on the obvious fact that if n 2 cards are arranged in the form of a square of n rows, each containing n cards, then any card will be defined if the row and the column in which it lies are mentioned. This information is generally elicited by first asking in which row the selected card lies, and noting the extreme left-hand card of that * Educational Times Reprints, London, 1865, vol. ii, p. 105. 112 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV row. The cards in each column are then taken up, face upwards, one at a time beginning with the lowest card of each column and taking the columns in their order from right to left–each card taken up being placed on the top of those previously taken up. The cards are then dealt out again in rows, from left to right, beginning with the top

lefthand corner, and a question is put as to which row contains the card. The selected card will be that card in the row mentioned which is in the same vertical column as the card which was originally noted. The above is the form in which the trick is usually presented, but it is greatly improved by allowing the pack to be cut as often as is liked before the cards are re-dealt, and then giving one cut at the end so as to make the top card in the pack one of those originally in the top row. The explanation is obvious. For, if 16 cards are taken, the first 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Figure i. 1 5 9 13 2 6 10 14 3 7 11 15 4 8 12 16 Figure ii. and second arrangements may be represented by figures i and ii. For example, if we are told that in figure i the card is in the third row, it must be either 9, 10, 11, or 12: hence, if we know in which row of figure ii it lies, it is determined. If we allow the pack to be cut between the deals, we must secure somehow that the top card is either 1, 2, 3, or 4, since that will leave the cards in each row of figure ii unaltered though the positions of the rows will be changed. CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 113 Determination of a selected pair of cards out of 1 2 n(n + 1) given pairs* . Another common trick is to throw twenty cards on to a table in ten couples, and ask someone to select one couple. The cards are then taken up, and dealt out in a certain manner into four rows each containing five cards. If the rows which contain the given cards are indicated, the cards selected are known at once. This depends on the fact that the number of homogeneous products of two dimensions which can be formed out of four things is 10. Hence the homogeneous products of two dimensions formed out of four things can be used to define ten things. Suppose that ten pairs of cards are placed on a table and someone selects one couple. Take up the cards in their couples. Then the first 1 2 3 5 7 4 9 10 11 13 6 12 15 16 17 8 14 18 19 20 two cards form the first couple, the next two the second couple, and so on. Deal them out in four rows each containing five cards according to the scheme shown in the diagram. The first couple (1 and 2) are in the first row. Of the next couple (3 and 4), put one in the first row and one in the second. Of the next couple (5 and 6), put one in the first row and one in the third, and so on, as indicated in the diagram. After filling up the first row proceed similarly with the second row, and so on. Enquire in which rows the two selected cards appear. If only one line, the mth, is mentioned as containing the cards then the required pair of cards are the mth and (m + 1)th cards in that line. These * Bachet, problem xvii, avertissement, p. 146 et seq. 114 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV occupy the clue squares of that line. Next, if two lines are mentioned, then proceed as follows. Let the two lines be the pth and the qth and suppose q > p. Then that one of the required cards which is in the qth line will be the (q−p)th card which is below the first of the clue squares in the pth line. The other of the required cards is in the pth line and is the (q − p)th card to the right of the second of the clue squares. Bachet's rule, in the form in which I have given it, is

applicable to a pack of n(n + 1) cards divided into couples, and dealt in n rows each containing n + 1 cards; for there are 1 2 n(n + 1) such couples, also there are 1 2 n(n + 1) homogeneous products of two dimensions which can be formed out of n things. Bachet gave the diagrams for the cases of 20, 30, and 42 cards: these the reader will have no difficulty in constructing for himself, and I have enunciated the rule for 20 cards in a form which covers all the cases. I have seen the same trick performed by means of a sentence and not by numbers. If we take the case of ten couples, then after collecting the pairs the cards must be dealt in four rows each containing five cards, in the order indicated by the sentence Matas dedit nomen Cocis. This sentence must be imagined as written on the table, each word forming one line, The first card is dealt on the M. The next card (which is the pair of the first) is placed on the second m in the sentence, that is, third in the third row. The third card is placed on the a. The fourth card (which is the pair of the third) is placed on the second a, that is, fourth in the first row. Each of the next two cards is placed on a t, and so on. Enquire in which rows the two selected cards appear. If two rows are mentioned, the two cards are on the letters common to the words that make these rows. If only one row is mentioned, the cards are on the two letters common to that row. The reason is obvious: let us denote each of the first pair by an a, and similarly each of any of the other pairs by an e, i, o, c, d, m, n, s, or t respectively. Now the sentence Matas dedit nomen Cocis contains four words each of five letters; ten letters are used, and each letter is repeated only twice. Hence, if two of the words are mentioned, they will have one letter in common, or, if one word is mentioned, it will have two like letters. To perform the same trick with any other number of cards we should require a different sentence. The number of homogeneous products of three dimensions which CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 115 can be formed out of four things is 20, and of these the number consisting of products in which three things are alike and those in which three things are different is 8. This leads to a trick with 8 trios of things, which is similar to that last given–the cards being arranged in the order indicated by the sentence Lanata levete livini novoto. I believe that these arrangements by sentences are known, but I am not aware who invented them. Gergonne's Pile Problem. Before discussing Gergonne's theorem I will describe the familiar three pile problem, the theory of which is included in his results. The Three Pile Problem* . This trick is usually performed as follows. Take 27 cards and deal them into three piles, face upwards. By "dealing" is to be understood that the top card is placed as the bottom card of the first pile, the second card in the pack as the bottom card of the second pile, the third card as the bottom card of the third pile, the fourth card on the top of the first one, and so on: moreover I assume that throughout the problem the cards are held in the hand face upwards. The result can be modified to cover any other way of dealing. Request a spectator to note

a card, and remember in which pile it is. After finishing the deal, ask in which pile the card is. Take up the three piles, placing that pile between the other two. Deal again as before, and repeat the question as to which pile contains the given card. Take up the three packs again, placing the pile which now contains the selected card between the other two. Deal again as before, but in dealing note the middle card of each pile. Ask again for the third time in which pile the card lies, and you will know that the card was the one which you noted as being the middle card of that pile. The trick can be finished then in any way that you like. The usual method—but a very clumsy one—is to take up the three piles once more, placing the named pile between the other two as before, when the selected card will be the middle one in the pack, that is, if 27 cards are used it will be the fourteenth. The trick is often performed with 15 cards or with 21 cards, in either of which cases the same rule holds. * The trick is mentioned by Bachet, problem xviii, p. 143, but his analysis of it is insufficient. 116 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV Gergonne's Generalization. The general theory for a pack of mm cards was given by M. Gergonne* . Suppose the pack is arranged in m piles, each containing mm−1 cards, and that, after the first deal, the pile indicated as containing the selected card is taken up ath; after the second deal, is taken up bth; and so on, and finally after the mth deal, the pile containing the card is taken up kth. Then when the cards are collected after the mth deal the selected card will be nth from the top where if m is even, $n = kmm-1 - jmm-2 + \cdots + bm - a + 1$, if m is odd, $n = kmm-1 - jmm-2 + \cdots - bm + a$. For example, if a pack of 256 cards (i.e. m = 4) was given, and anyone selected a card out of it, the card could be determined by making four successive deals into four piles of 64 cards each, and after each deal asking in which pile the selected card lay. The reason is that after the first deal you know it is one of sixty-four cards. In the next deal these sixty-four cards are distributed equally over the four piles, and therefore, if you know in which pile it is, you will know that it is one of sixteen cards. After the third deal you know it is one of four cards. After the fourth deal you know which card it is. Moreover, if the pack of 256 cards is used, it is immaterial in what order the pile containing the selected card is taken up after a deal. For, if after the first deal it is taken up ath, after the second bth, after the third cth, and after the fourth dth, the card will be the (64d − 16c + 4b − a + 1)th from the top of the pack, and thus will be known. We need not take up the cards after the fourth deal, for the same argument will show that it is the (64 − 16c + 4b − a + 1)th in the pile then indicated as containing it. Thus if a = 3, b = 4, c = 1, d = 2, it will be the 62nd card in the pile indicated after the fourth deal as containing it and will be the 126th card in the pack as then collected. In exactly the same way a pack of twenty-seven cards may be used, and three successive deals, each into three piles of nine cards, will suffice to determine the card. If after the deals the pile indicated as containing the given card is taken up ath, bth, and cth respectively, then the

card will be the (9c − 3b + a)th in the pack or will be the (9 − 3b + a)th card in the pile indicated after the third deal as containing it. * Gergonne's Annales de Mathématiques, Nismes, 1813–4, vol. iv, pp. 276–283. CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 117 The method of proof will be illustrated sufficiently by considering the usual case of a pack of twenty-seven cards, for which m = 3, which are dealt into three piles each of nine cards. Suppose that, after the first deal, the pile containing the selected card is taken up ath: then (i) at the top of the pack there are a − 1 piles each containing nine cards; (ii) next there are 9 cards, of which one is the selected card; and (iii) lastly there are the remaining cards of the pack. The cards are dealt out now for the second time: in each pile the bottom 3(a − 1) cards will be taken from (i), the next 3 cards from (ii), and the remaining 9 − 3a cards from (iii). Suppose that the pile now indicated as containing the selected card is taken up bth: then (i) at the top of the pack are 9(b − 1) cards; (ii) next are 9 − 3a cards; (iii) next are 3 cards, of which one is the selected card; and (iv) lastly are the remaining cards of the pack. The cards are dealt out now for the third time: in each pile the bottom 3(b − 1) cards will be taken from (i), the next 3 − a cards will be taken from (ii), the next card will be one of the three cards in (iii), and the remaining 8 − 3b + a cards are from (iv). Hence, after this deal, as soon as the pile is indicated, it is known that the card is the (9 − 3b + a)th from the top of that pile. If the process is continued by taking up this pile as cth, then the selected card will come out in the place 9(c − 1) + (8 − 3b + a) + 1 from the top, that is, will come out as the (9c − 3b + a)th card. Since, after the third deal, the position of the card in the pile then indicated is known, it is easy to notice the card, in which case the trick can be finished in some way more effective than dealing again. If we put the pile indicated always in the middle of the pack we have a = 2, b = 2, c = 2, hence n = 9c − 3b + a = 14, which is the form in which the trick is usually presented, as was explained above on page 115. I have shown that if a, b, c are known, then n is determined. We may modify the rule so as to make the selected card come out in any assigned position, say the nth. In this case we have to find values of a, b, c which will satisfy the equation n = 9c − 3b + a, where a, b, c can have only the values 1, 2, or 3. Hence, if we divide n by 3 and the remainder is 1 or 2, this remainder will be a; but, if the remainder is 0, we must decrease the quotient by unity so that the remainder is 3, and this remainder will be a. In 118 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV other words a is the smallest positive number (exclusive of zero) which must be subtracted from n to make the difference a multiple of 3. Next let p be this multiple, i.e. p is the next lowest integer to n/3: then 3p = 9c−3b, therefore p = 3c−b. Hence b is the smallest positive number (exclusive of zero) which must be added to p to make the sum a multiple of 3, and c is that multiple. A couple of illustrations will make this clear. Suppose we wish the card to come out 22nd from the top, therefore 22 = 9c − 3b + a. The smallest number which must be subtracted from 22 to leave a

multiple of 3 is 1, therefore a = 1. Hence 22 = 9c − 3b + 1, therefore 7 = 3c − b. The smallest number which must be added to 7 to make a multiple of 3 is 2, therefore b = 2. Hence 7 = 3c − 2, therefore c = 3. Thus a = 1, b = 2, c = 3. Again, suppose the card is to come out 21st. Hence 21 = 9c−3b+a. Therefore a is the smallest number which subtracted from 21 makes a multiple of 3, therefore a = 3. Hence 6 = 3c − b. Therefore b is the smallest number which added to 6 makes a multiple of 3, therefore b = 3. Hence 9 = 3c, therefore c = 3. Thus a = 3, b = 3, c = 3. If any difficulty is experienced in this work, we can proceed thus. Let a = x + 1, b = 3 − y, c = z + 1; then x, y, z may have only the values 0, 1, or 2. In this case Gergonne's equation takes the form 9z + 3y + x = n − 1. Hence, if n − 1 is expressed in the ternary scale of notation, x, y, z will be determined, and therefore a, b, c will be known. The rule in the case of a pack of mm cards is exactly similar. We want to make the card come out in a given place. Hence, in Gergonne's formula, we are given n and we have to find a, b, . . . , k. We can effect this by dividing n continually by m, with the convention that the remainder are to be alternately positive and negative and that their numerical values are to be not greater than m or less than unity. An analogous theorem with a pack of lm cards can be constructed. C.T. Hudson and L.E. Dickson* have discussed the general case where such a pack is dealt n times, each time into l piles of m cards; and they have shown how the piles must be taken up in order that after the nth deal the selected card may be rth from the top. The principle will be sufficiently illustrated by one example treated in a manner analogous to the cases already discussed. For instance, * Educational Times Reprints, 1868, vol. ix, pp. 89–91; and Bulletin of the American Mathematical Society, New York, April, 1895, vol. i, pp. 184–186. CH. IV] PROBLEMS CONNECTED WITH A PACK OF CARDS. 119 suppose that an écarté pack of 32 cards is dealt into 4 piles each of 8 cards, and that the pile which contains some selected card is picked up ath. Suppose that on dealing again into four piles, one pile is indicated as containing the selected card, the selected card cannot be one of the bottom 2(a − 1) cards, or of the top 8 − 2a cards, but must be one of the intermediate 2 cards, and the trick can be finished in any way, as for instance by the common conjuring ambiguity of asking someone to choose one of them, leaving it doubtful whether the one he takes is to be rejected or retained. The Mouse Trap. I will conclude this chapter with the bare mention of another game of cards, known as the mouse trap, the discussion of which involves some rather difficult algebraic analysis. It is played as follows. A set of cards, marked with the numbers 1, 2, 3, . . . , n, is dealt in any order, face upwards, in the form of a circle. The player begins at any card and counts round the circle always in the same direction. If the kth card has the number k on it—which event is called a hit—the player takes up the card and begins counting afresh. According to Cayley, the player wins if he thus takes up all the cards, and the cards win if at any time the player counts up to n without being able to take up

a card. For example, if a pack of only four cards is used and these cards come in the order, 3214, then the player would obtain the second card 2 as a hit, next he would obtain 1 as a hit, but if he went on for ever he would not obtain another hit. On the other hand, if the cards in the pack were initially in the order 1423, the player would obtain successively all four cards in the order 1, 2, 3, 4. The problem may be stated as the determination of what hits and how many hits can be made with a given number of cards; and what permutations will give a certain number of hits in a certain order. Cayley* showed that there are 9 arrangements of a pack of four cards in which no hit will be made, 7 arrangements in which only one hit will be made, 3 arrangements in which only two hits will be made, and 5 arrangements in which four hits will be made. Prof. Steen† has investigated the general theory for a pack of n cards. He has shown how to determine the number of arrangements in * Quarterly Journal of Mathematics, 1878, vol. xv, pp. 8–10. † Ibid., vol. xv, pp. 230–241. 120 MISCELLANEOUS MATHEMATICAL RECREATIONS. [CH. IV which x is the first hit [Arts. 3–5]; the number of arrangements in which 1 is the first hit and x is the second hit [Art. 6]; and the number of arrangements in which 2 is the first hit and x the second hit [Arts. 7–8]; but beyond this point the theory has not been carried. It is obvious that, if there are n − 1 hits, the nth hit will necessarily follow. Treize. The French game of treize is very similar. It is played with a full pack of fifty-two cards (knave, queen, and king counting as 11, 12, and 13 respectively). The dealer calls out 1, 2, 3, . . . , 13, as he deals the 1st, 2nd, 3rd, . . . , 13th cards respectively. At the beginning of a deal the dealer offers to lay or take certain odds that he will make a hit in the thirteen cards next dealt. One of the innumerable forms of patience is played in a similar way. CHAPTER V. MAGIC SQUARES. A magic square consists of a number of integers arranged in the form of a square, so that the sum of the numbers in every row, in every column, and in each diagonal is the same. If the integers are the consecutive numbers from 1 to n 2 the square is said to be of the nth order, and it is easily seen that in this case the sum of the numbers in any row, column, or diagonal is equal to 1 2 n(n 2 + 1): this number may be denoted by N. I confine my account to such magic squares, that is, to squares formed with consecutive integers, from 1 upwards. Thus the first 16 integers, arranged in either of the forms given in figures i and ii below, form a magic square of the fourth order, the sum 1 15 14 4 12 6 7 9 8 10 11 5 13 3 2 16 Figure i. 15 10 3 6 4 5 16 9 14 11 2 7 1 8 13 12 Figure ii. of the numbers in any row, column, or diagonal being 34. Similarly figures iii and v on page 124, figure viii on page 126, and figures xii and xiii on page 136, show magic squares of the fifth order; and figure xi on page 133 shows a magic square of the sixth order; and figures xiv and xv on pages 137, 138, show magic squares of the eighth order. 121 122 MAGIC SQUARES. [CH. V The formation of these squares is an old amusement, and in times when mystical philosophical ideas were associated with particular numbers it was natural that such

arrangements should be deemed to possess magical properties. Magic squares of an odd order were constructed in India before the Christian era according to a law of formation which is explained hereafter. Their introduction into Europe appears to have been due to Moschopulus, who lived at Constantinople in the early part of the fifteenth century, and enunciated two methods for making such squares. The majority of the medieval astrologers and physicians were much impressed by such arrangements. In particular the famous Cornelius Agrippa (1486–1535) constructed magic squares of the orders 3, 4, 5, 6, 7, 8, 9, which were associated respectively with the seven astrological "planets": namely, Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon. He taught that a square of one cell, in which unity was inserted, represented the unity and eternity of God; while the fact that a square of the second order could not be constructed illustrated the imperfection of the four elements, air, earth, fire, and water; and later writers added that it was symbolic of original sin. A magic square engraved on a silver plate was sometimes prescribed as a charm against the plague, and one, namely, that represented in figure i on page 121, is drawn in the picture of Melancholy, painted about the year 1500 by Albert Dürer. Such charms are still worn in the East. The development of the theory has been due mainly to French mathematicians. Bachet gave a rule for the construction of any square of an odd order in a form substantially equivalent to one of the rules given by Moschopulus. The formation of magic squares, especially of even squares, was considered by Frénicle and Fermat. The theory was continued by Poignard, De la Hire, Sauveur, D'Ons-en-bray, and Des Ourmes. Ozanam included in his work an essay on magic squares which was amplified by Montucla. From this and from De la Hire's memoirs the larger part of the materials for this chapter are derived. Like most algebraical problems, the construction of magic squares attracted the attention of Euler, but he did not advance the general theory. In 1837 an elaborate work on the subject was compiled by B. Violle, which is useful as containing numerous illustrations. I give the references in a footnote* . * Bachet, Problèmes plaisans, Lyons, 1624, problem xxi, p. 161; Frénicle, Divers Ouvrages de Mathématique par Messieurs de l'Académie des Sciences, Paris, CH. V] MAGIC SQUARES OF AN ODD ORDER.. 123 I shall confine myself to establishing rules for the construction of squares subject to no conditions beyond those given in the definition. Rules sufficient for this purpose are contained in the works to which I have just referred and on which I have based this sketch; some extensions and developments will be found in the memoirs mentioned below* . I shall commence by giving rules for the construction of a square of an odd order, and then shall proceed to similar rules for one of an even order. It will be convenient to use the following terms. The spaces or small squares occupied by the numbers are called cells. The diagonal from the top left-hand cell to the bottom right-hand cell is called the leading diagonal or left diagonal. The diagonal from the top right-

hand cell to the bottom left-hand cell is called the right diagonal. Magic Squares of an odd order. I proceed to give methods for constructing odd magic squares, but for simplicity I shall apply them to the formation of squares of the fifth order, though exactly similar 1693, pp. 423–483; with an appendix (pp. 484–507), containing diagrams of all the possible magic squares of the fourth order, 880 in number: Fermat, Opera Mathematica, Toulouse, 1679, pp. 173–178; or Brassinne's Précis, Paris, 1853, pp. 146–149: Poignard, Traité des Quarrés Sublimes, Brussels, 1704: De la Hire, Mémoires de l'Académie des Sciences for 1705, Paris, 1706, part i, pp. 127–171; part ii, pp. 364–382: Sauveur, Construction des Quarrés Magiques, Paris, 1710: D'Ons-en-bray, Mémoires de l'Académie des Sciences for 1750, Paris, 1754, pp. 241–271: Des Ourmes, Mémoires de Mathématique et de Physique (French Academy), Paris, 1763, vol. iv, pp. 196–241: Ozanam and Montucla, Récréations, part i, chapter xii: Euler, Commentationes Arithmeticae Collectae, St Petersburg, 1849, vol. ii, pp. 593–602: Violle, Traité Complet des Carrés Magiques, 3 vols, Paris, 1837–8. A sketch of the history of the subject is given in chap. iv of S. Günther's Geschichte der mathematischen Wissenschaften, Leipzig, 1876. See also W. Ahrens, Mathematische Unterhaltungen und Spiele, Leipzig, 1901, chapter xii. * In England the subject has been studied by R. Moon, Cambridge Mathematical Journal, 1845, vol. iv, pp. 209–214; H. Holditch, Quarterly Journal of Mathematics, London, 1864, vol. vi, pp. 181–189; W.H. Thompson, Ibid., 1870, vol. x, pp. 186–202; J. Horner, Ibid., 1871, vol. xi, pp. 57–65, 123–132, 213– 224; S.M. Drach, Messenger of Mathematics, Cambridge, 1873, vol. ii, pp. 169– 174, 187; A.H. Frost, Quarterly Journal of Mathematics, London, 1878, vol. xv, pp. 34–49, 93–123, 366–368, in which the results of previous memoirs are included: there are also some pamphlets and articles on it of a more popular character. Of recent Continental works on the subject I have no complete bibliography, and probably it is better to omit all rather than give an imperfect list. 124 MAGIC SQUARES. [CH. V proofs will apply equally to any odd square. De la Loubère's Method* . If the reader will look at figure iii he will see one way in which such a square containing 25 cells can be constructed. The middle cell in the top row is occupied by 1. The successive numbers are placed in their natural order in a diagonal line 17 24 1 8 15 23 5 7 14 16 4 6 13 20 22 10 12 19 21 3 11 18 25 2 9 De la Loubère's Method. Figure iii. 15 + 2 20 + 4 0 + 1 5 + 3 10 + 5 20 + 3 0 + 5 5 + 2 10 + 4 15 + 1 0 + 4 5 + 1 10 + 3 15 + 5 20 + 2 5 + 5 10 + 2 15 + 4 20 + 1 0 + 3 10 + 1 15 + 3 20 + 5 0 + 2 5 + 4 De la Loubère's Method. Figure iv. 23 6 19 2 15 10 18 1 14 22 17 5 13 21 9 4 12 25 8 16 11 24 7 20 3 Bachet's Method. Figure v. which slopes upwards to the right, except that (i) when the top row is reached the next number is written in the bottom row as if it came immediately above the top row; (ii) when the right-hand column is reached, the next number is written in the left-hand column, as if it immediately succeeded the right-hand column; and (iii) when a cell which has been filled up already, or

when the top right-hand square is reached, the path of the series drops to the row vertically below it and then continues to mount again. Probably a glance at the diagram in figure iii will make this clear. The reason why such a square is magic can be explained best by expressing the numbers in the scale of notation whose radix is 5 (or n, if the magic square is of the order n), except that 5 is allowed to appear as a unit-digit and 0 is not allowed to appear as a unit-digit. The result is shown in figure iv. From that figure it will be seen that the method of construction ensures that every row and every column shall contain one and only one of each of the unit-digits 1, 2, 3, 4, 5, the sum of which is 15; and also one and only one of each of the radix-digits 0, 5, 10, 15, 20, the sum of which is 50. Hence, as far as rows and columns are concerned, the square is magic. Moreover if the square is odd, each of the diagonals will contain one and only one of each of the unit-digits 1, 2, 3, 4, 5. Also the leading diagonal will contain one and only one * De la Loubère, Du Royaume de Siam (Eng. Trans.), London, 1693, vol. ii, pp. 227–247. De la Loubère was the envoy of Louis XIV to Siam in 1687–8, and there learnt this method. CH. V] MAGIC SQUARES OF AN ODD ORDER.. 125 of the radix-digits 0, 5, 10, 15, 20, the sum of which is 50; and if, as is the case in the square drawn above, the number 10 is the radix-digit to be added to the unit-digits in the right diagonal, then the sum of the radix-digits in that diagonal is also 50. Hence the two diagonals also possess the magical property. And generally if a magic square of an odd order n is constructed by De la Loubère's method, every row and every column must contain one and only one of each of the unit-digits 1, 2, 3 . . . , n; and also one and only one of each of the radix-digits 0, n, 2n, . . . , n(n − 1). Hence, as far as rows and columns are concerned, the square is magic. Moreover each diagonal will either contain one and only one of the unit-digits or will contain n unit-digits each equal to 1 2 (n + 1). It will also either contain one and only one of the radix-digits or will contain n radix-digits each equal to 1 2 n(n−1). Hence the two diagonals will also possess the magical property. Thus the square will be magic. I may notice here that, if we place 1 in any cell and fill up the square by De la Loubère's rule, we shall obtain a square that is magic in rows and in columns, but it will not in general be magic in its diagonals. It is evident that other squares can be derived from De la Loubère's square by permuting the symbols properly. For instance, in figure iv, we may permute the symbols 1, 2, 3, 4, 5 in 5! ways, and we may permute the symbols 0, 5, 15, 20 in 4! ways. Any one of these 5! arrangements combined with any one of these 4! arrangements will give a magic square. Hence we can obtain 2880 magic squares of the fifth order of this kind, though only 720 of them are really distinct. Other squares can however be deduced, for it may be noted that from any magic square, whether even or odd, other magic squares of the same order can be formed by the mere interchange of the row and the column which intersect in a cell on a diagonal with the row and the column which intersect in the complementary cell of the same diagonal. Bachet's

Method* . Another method, very similar to that of De la Loubère, for constructing an odd magic square is as follows. We begin by placing 1 in the cell above the middle one (that is, in a square of the fifth order in the cell occupied by the number 7 in figure iii), and then we write the successive numbers in a diagonal line sloping upwards to the right, subject to the condition that when the cases (i) and (ii) mentioned under De la Loubère's method occur the rules there * Bachet, Problem xxi, p. 161. 126 MAGIC SQUARES. [CH. V given are followed, but when the case (iii) occurs the path of the series rises two rows, i.e. it is continued from one cell to the cell next but one vertically above it, if this cell is above the top row the path continues from the corresponding cell in one of the bottom two rows following the analogy of rule (i) in De la Loubère's method. Such a square is delineated in figure v on page 124. Bachet's method leads ultimately to this arrangement; except that the rules are altered so as to make the line slope downwards. This method also gives 720 magic squares of the fifth order. De la Hire's Method* . I shall now give another rule for the formation of odd magic squares. To form an odd magic square of the order n by this method, we begin by constructing two subsidiary squares, one of the unit-digits, 1, 2, . . . , n, and the other of multiples of the radix, namely, 0, n, 2n, . . . ,(n − 1)n. We then form the magic square by adding together the numbers in the corresponding cells in the two subsidiary squares. De la Hire gave several ways of constructing such subsidiary squares. I select the following method (props. x and xiv of his memoir) as being the simplest, but I shall apply it to form a square of only the fifth order. It leads to the same results as the second of the two rules given by Moschopulus. The first of the subsidiary squares (figure vi, below), is constructed thus. First, 3 is put in the top left-hand corner, and then the numbers 1, 2, 4, 5 are written in the other cells of the top line (in any order). Next, the number in each cell of the top line is repeated in all the cells 3 4 1 5 2 2 3 4 1 5 5 2 3 4 1 1 5 2 3 4 4 1 5 2 3 First Subsidiary Square Figure vi. 15 0 20 5 10 0 20 5 10 15 20 5 10 15 0 5 10 15 0 20 10 15 0 20 5 Second Subsidiary Square Figure vii. 18 4 21 10 12 2 23 9 11 20 25 7 13 19 1 6 15 17 3 24 14 16 5 22 8 Resulting Magic Square Figure viii. which lie in a diagonal line sloping downwards to the right (see figure vi) according to the rule (ii) in De la Loubère's method. The cells filled by * Mémoires de l'Académie des Sciences for 1705, part i, pp. 127–171. CH. V] MAGIC SQUARES OF AN ODD ORDER.. 127 the same number form a broken diagonal. It follows that every row and every column contains one and only one 1, one and only one 2, and so on. Hence the sum of the numbers in every row and in every column is equal to 15; also, since we placed 3, which is the average of these numbers, in the top left-hand corner, the sum of the numbers in the left diagonal is 15; and, since the right diagonal contains one and only one of each of the numbers 1, 2, 3, 4, and 5, the sum of the numbers in that diagonal also is 15. The second of the subsidiary squares (figure vii) is constructed in a similar way with the numbers 0,

5, 10, 15, and 20, except that the mean number 10 is placed in the top right-hand corner; and the broken diagonals formed of the same numbers all slope downwards to the left. It follows that every row and every column in figure vii contains one and only one 0, one and only one 5, and so on; hence the sum of the numbers in every row and every column is equal to 50. Also the sum of the numbers in each diagonal is equal to 50. If now we add together the numbers in the corresponding cells of these two squares, we shall obtain 25 numbers such that the sum of the numbers in every row, every column, and each diagonal is equal to 15 + 50, that is, to 65. This is represented in figure viii. Moreover, no two cells in that figure contain the same number. For instance, the numbers 21 to 25 can occur only in those five cells which in figure vii are occupied by the number 20, but the corresponding cells in figure vi contain respectively the numbers 1, 2, 3, 4, and 5; and thus in figure viii each of the numbers from 21 to 25 occurs once and only once. De la Hire preferred to have the cells in the subsidiary squares which are filled by the same number connected by a knight's move and not by a bishop's move; and usually his rule is enunciated in that form. By permuting the numbers 1, 2, 4, 5 in figure vi we get 4! other arrangements, each of which combined with that in figure vii would give a magic square. Similarly by permuting the numbers 0, 5, 15, 20 in figure vii we obtain 4! other squares, each of which might be combined with any of the 4! arrangements deduced from figure vi. Hence altogether we can obtain in this way 576 magic squares of the fifth order. There is yet another method of constructing odd squares which is due to Poignard, and was improved by De la Hire in the memoir already cited. I shall not discuss it, because, though for certain assigned values of n it is simpler than the methods which I have given, it depends on 128 MAGIC SQUARES. [CH. V the form of n, and particularly on the number of prime factors of n. In the case of a square of the fifth order, this gives an even larger number of magic squares than the methods of De la Loubère, Bachet, and De la Hire. I may also add that it has been shown that magic squares whose order is a prime number can be constructed by a rule similar to De la Loubère's, except that we begin by placing 1 in the bottom left-hand cell, and the subsequent consecutive numbers fill cells forming a knight's path on the square and not a bishop's path. A square of the fifth order of this kind is given in figure xiii on page 136. There are 2880 magic squares of the fifth order of this kind. De la Hire showed that, apart from mere inversions, there were 57600 magic squares of the fifth order which could be formed by the methods he enumerated. Taking account of other methods, it would seem that the total number of magic squares of the fifth order is very large, perhaps exceeding 500000. Magic squares of an even order. The above methods are inapplicable to squares of an even order. I proceed to give two methods for constructing any even magic square of an order higher than two. It will be convenient to use the following terms. Two rows which are equidistant, the one from the top, the other

from the bottom, are said to be complementary. Two columns which are equidistant, the one from the left-hand side, the other from the right-hand side, are said to be complementary. Two cells in the same row, but in complementary columns, are said to be horizontally related. Two cells in the same column, but in complementary rows, are said to be vertically related. Two cells in complementary rows and columns are said to be skewly related; thus, if the cell b is horizontally related to the cell a, and the cell d is vertically related to the cell a, then the cells b and d are skewly related; in such a case if the cell c is vertically related to the cell b, it will be horizontally related to the cell d, and the cells a and c are skewly related: the cells a, b, c, d constitute an associated group, and if the square is divided into four equal quarters, one cell of an associated group is in each quarter. A horizontal interchange consists in the interchange of the numbers in two horizontally related cells. A vertical interchange consists in the interchange of the numbers in two vertically related cells. A skew interchange consists in the interchange of the numbers in two skewly related cells. A cross interchange consists in the change of the numbers CH. V] MAGIC SQUARES OF AN EVEN ORDER.. 129 in any cell and in its horizontally related cell with the numbers in the cells skewly related to them; hence, it is equivalent to two vertical interchanges and two horizontal interchanges. First Method* . This method is the simplest with which I am acquainted, and I believe, at any rate as far as concerns singly-even squares, was published for the first time in 1893. Begin by filling the cells of the square with the numbers 1, 2, . . . , n2 in their natural order commencing (say) with the top left-hand corner, writing the numbers in each row from left to right, and taking the rows in succession from the top. I will commence by proving that a certain number of horizontal and vertical interchanges in such a square must make it magic, and will then give a rule by which the cells whose numbers are to be interchanged can be at once picked out. First, we may notice that the sum of the numbers in each diagonal is equal to N, where N = 1 2 n(n 2 + 1); hence the diagonals are already magic, and will remain so if the numbers therein are not altered. Next, consider the rows. The sum of the numbers in the xth row from the top is N − 1 2 n 2 (n − 2x + 1). The sum of the numbers in the complementary row, that is, the xth row from the bottom, is N + 1 2 n 2 (n − 2x + 1). Also the number in any cell in the xth row is less than the number in the cell vertically related to it by n(n − 2x + 1). Hence, if in these two rows we make 1 2 n interchanges of the numbers which are situated in vertically related cells, then we increase the sum of the numbers in the xth row by 1 2 n × n(n − 2x + 1), and therefore make that row magic; while we decrease the sum of the numbers in the complementary row by the same number, and therefore make that row magic. Hence, if in every pair of complementary rows we make 1 2 n interchanges of the numbers situated in vertically related cells, the square will be made magic in rows. But, in order that the diagonals may remain magic, either we must leave both the

diagonal numbers in any row unaltered, or we must change both of them with those in the cells vertically related to them. The square is now magic in diagonals and in rows, and it remains to make it magic in columns. Taking the original arrangement of the numbers (in their natural order) we might have made the square magic in columns in a similar way to that in which we made it magic in rows. * See an article in the Messenger of Mathematics, Cambridge, September, 1893, vol. xxiii, pp. 65–69. 130 MAGIC SQUARES. [CH. V The sum of the numbers originally in the yth column from the left-hand side is N − 1 2 n(n − 2y + 1). The sum of the numbers originally in the complementary column, that is, the yth column from the right-hand side, is N + 1 2 n(n − 2y + 1). Also the number originally in any cell in the yth column was less than the number in the cell horizontally related to it by n−2y + 1. Hence, if in these two columns we had made 1 2 n interchanges of the numbers situated in horizontally related cells, we should have made the sum of the numbers in each column equal to N. If we had done this in succession for every pair of complementary columns, we should have made the square magic in columns. But, as before, in order that the diagonals might remain magic, either we must have left both the diagonal numbers in any column unaltered, or we must have changed both of them with those in the cells horizontally related to them. It remains to show that the vertical and horizontal interchanges, which have been considered in the last two paragraphs, can be made independently, that is, that we can make these interchanges of the numbers in complementary columns in such a manner as will not affect the numbers already interchanged in complementary rows. This will require that in every column there shall be exactly 1 2 n interchanges of the numbers in vertically related cells, and that in every row there shall be exactly 1 2 n interchanges of the numbers in horizontally related cells. I proceed to show how we can always ensure this, if n is greater than 2. I continue to suppose that the cells are initially filled with the numbers 1, 2, . . . , n2 in their natural order, and that we work from that arrangement. A doubly-even square is one where n is of the form 4m. If the square is divided into four equal quarters, the first quarter will contain 2m columns and 2m rows. In each of these columns take m cells so arranged that there are also m cells in each row, and change the numbers in these 2m2 cells and the 6m2 cells associated with them by a cross interchange. The result is equivalent to 2m interchanges in every row and in every column, and therefore renders the square magic. One way of selecting the 2m2 cells in the first quarter is to divide the whole square into sixteen subsidiary squares each containing m2 cells, which we may represent by the diagram below, and then we may take either the cells in the a squares or those in the b squares; thus, if every number in the eight a squares is interchanged with the number CH. V] MAGIC SQUARES OF AN EVEN ORDER.. 131 a b b a b a a b b a a b a b b a skewly related to it the resulting square is magic. A magic square of the eighth order, constructed in this way, is shown in figure

xv on page 138. Another way of selecting the 2m2 cells in the first quarter would be to take the first m cells in the first column, the cells 2 to m + 1 in the second column, and so on, the cells m + 1 to 2m in the (m + 1)th column, the cells m+2 to 2m and the first cell in the (m+2)th column, and so on, and finally the 2mth cell and the cells 1 to m − 1 in the 2mth column. A singly-even square is one where n is of the form 2(2m+1). If the square is divided into four equal quarters, the first quarter will contain 2m+1 columns and 2m+1 rows. In each of these columns take m cells so arranged that there are also m cells in each row: as, for instance, by taking the first m cells in the first column, the cells 2 to m + 1 in the second column, and so on, the cells m + 2 to 2m + 1 in the (m + 2)th column, the cells m + 3 to 2m + 1 and the first cell in the (m + 3)th column, and so on, and finally the (2m + 1)th cell and the cells 1 to m − 1 in the (2m + 1)th column. Next change the numbers in these m(2m+1) cells and the 3m(2m+1) cells associated with them by cross interchanges. The result is equivalent to 2m interchanges in every row and in every column. In order to make the square magic we must have 1 2 n, that is, 2m+1 such interchanges in every row and in every column, that is, we must have one more interchange in every row and in every column. This presents no difficulty, for instance, in the arrangement indicated above the numbers in the (2m + 1)th cell of the first column, in the first cell of the second column, in the second cell of the third column, and so on, to the 2mth cell in the (2m + 1)th column may be interchanged with the numbers in their vertically related cells; this will make all the rows magic. Next, the numbers in the 2mth cell of the first column, in the (2m + 1)th cell of the second column, in the first cell of the third column, in the second cell of the fourth column, and so on, to the (2m−1)th cell of the (2m+ 1)th column may be interchanged with those in the cells horizontally related to them; and this will make the 132 MAGIC SQUARES. [CH. V columns magic without affecting the magical properties of the rows. It will be observed that we have implicitly assumed that m is not zero, that is, that n is greater than 2; also it would seem that, if m = 1 and therefore n = 6, then the numbers in the diagonal cells must be included in those to which the cross interchange is applied, but, if n > 6, this is not necessary, though it may be convenient. The construction of odd magic squares and of doubly-even magic squares is very easy. But though the rule given above for singly-even squares is not difficult, it is tedious of application. It is unfortunate that no more obvious rule—such, for instance, as one for bordering a doubly-even square—can be suggested for writing down instantly and without thought singly-even magic squares. De la Hire's Method* . I now proceed to give another way due to De la Hire, of constructing any even magic square of an order higher than two. In the same manner as in his rule for making odd magic squares, we begin by constructing two subsidiary squares, one of the unit-digits, 1, 2, 3, . . . , n, and the other of the radix-digits 0, n, 2n, . . . ,(n − 1)n. We then form the magic square by adding together the numbers in the corresponding cells in the two

subsidiary squares. Following the analogy of the notation used above, two numbers which are equidistant from the ends of the series 1, 2, 3, . . . , n are said to be complementary. Similarly numbers which are equidistant from the ends of the series 0, n, 2n, . . . ,(n − 1)n are said to be complementary. For simplicity I shall apply this method to construct a magic square of only the sixth order, though an exactly similar method will apply to any even square of an order higher than the second. The first of the subsidiary squares (figure ix) is constructed as follows. First, the cells in the leading diagonal are filled with the numbers 1, 2, 3, 4, 5, 6 placed in any order whatever that puts complementary numbers in complementary positions (ex. gr. in the order 2, 6, 3, 4, 1, 5, or in their natural order 1, 2, 3, 4, 5, 6). Second, the cells vertically related to these are filled respectively with the same numbers. Third, each of the remaining cells in the first vertical column is filled * The rule is due to De la Hire (part 2 of his memoir) and is given by Montucla in his edition of Ozanam's work: I have used the modified enunciation of it inserted in Labosne's edition of Bachet's Problèmes, as it saves the introduction of a third subsidiary square. I do not know to whom the modification is due. CH. V] MAGIC SQUARES OF AN EVEN ORDER.. 133 1 5 4 3 2 6 6 2 4 3 5 1 6 5 3 4 2 1 1 5 3 4 2 6 6 2 3 4 5 1 1 2 4 3 5 6 First Subsidiary Square Figure ix. 0 30 30 0 30 0 24 6 24 24 6 6 18 18 12 12 12 18 12 12 18 18 18 12 6 24 6 6 24 24 30 0 0 30 0 30 Second Subsidiary Square Figure x. 1 35 34 3 32 6 30 8 28 27 11 7 24 23 15 16 14 19 13 17 21 22 20 18 12 26 9 10 29 25 31 2 4 33 5 36 Resulting Magic Square Figure xi. either with the same number as that already in two of them or with the complementary number (ex. gr. in figure ix with a "1" or a "6") in any way, provided that there are an equal number of each of these numbers in the column, and subject also to the provisoes mentioned in the next paragraph but one. Fourth, the cells horizontally related to those in the first column are filled with the complementary numbers. Fifth, the remaining cells in the second and third columns are filled in an analogous way to that in which those in the first column were filled: and then the cells horizontally related to them are filled with the complementary numbers. The square so formed is necessarily magic in rows, columns, and diagonals. The second of the subsidiary squares (figure x) is constructed as follows. First, the cells in the leading diagonal are filled with the numbers 0, 6, 12, 18, 24, 30 placed in any order whatever that puts complementary numbers in complementary positions. Second, the cells horizontally related to them are filled respectively with the same numbers. Third, each of the remaining cells in the first horizontal row is filled either with the same number as that already in two of them or with the complementary number (ex. gr. in figure x with a "0" or a "30") in any way, provided (i) that there are an equal number of each of these numbers in the row, and (ii) that if any cell in the first row of figure ix and its vertically related cell are filled with complementary numbers, then the corresponding cell in the first row of figure x and its horizontally related cell must be occupied by the

same number* . Fourth, the cells vertically related to those in the first row are filled with the complementary numbers. Fifth, the remaining cells in the second and * The insertion of this step evades the necessity of constructing (as Montucla did) a third subsidiary square. 134 MAGIC SQUARES. [CH. V the third rows are filled in an analogous way to that in which those in the first row were filled: and then the cells vertically related to them are filled with the complementary numbers. The square so formed is necessarily magic in rows, columns, and diagonals. It remains to show that proviso (ii) in the third step described in the last paragraph can be satisfied always. In a doubly even square, that is, one in which n is divisible by 4, we need not have any complementary numbers in vertically related cells in the first subsidiary square unless we please, but even if we like to insert them they will not interfere with the satisfaction of this proviso. In the case of a singly even square, that is, one in which n is divisible by 2, but not by 4, we cannot satisfy the proviso if any horizontal row in the first square has all its vertically related squares, other than the two squares in the diagonals, filled with complementary numbers. Thus in the case of a singly even square it will be necessary in constructing the first square to take care in the third step that in every row at least one cell which is not in a diagonal shall have its vertically related cell filled with the same number as itself: this is always possible if n is greater than 2. The required magic square will be constructed if in each cell we place the sum of the numbers in the corresponding cells of the subsidiary squares, figures ix and x. The result of this is given in figure xi. The square is evidently magic. Also every number from 1 to 36 occurs once and only once, for the numbers from 1 to 6 and from 31 to 36 can occur only in the top or the bottom rows, and the method of construction ensures that the same number cannot occur twice. Similarly the numbers from 7 to 12 and from 25 to 30 occupy two other rows, and no number can occur twice; and so on. The square in figure i on page 121 may be constructed by the above rules; and the reader will have no difficulty in applying them to any other even square. Other Methods for Constructing any Magic Square. The above methods appear to me to be the simplest which have been proposed. There are however two other methods, of less generality, to which I will allude briefly in passing. Both depend on the principle that, if every number in a magic square is multiplied by some constant, and a constant is added to the product, the square will remain magic. The first method applies only to such squares as can be divided into smaller magic squares of some order higher than two. It depends on the fact that, if we know how to construct magic squares of the mth and nth CH. V] COMPOSITE AND BORDERED SQUARES.. 135 orders, we can construct one of the mnth order. For example, a square of 81 cells may be considered as composed of 9 smaller squares each containing 9 cells, and by filling the cells in each of these small squares in the same relative order and taking the small squares themselves in the same order, the square can be constructed easily. Such squares are

called composite magic squares. The second method, which was introduced by Frénicle, consists in surrounding a magic square with a border . Thus in figure xii on the following page the inner square is magic, and it is surrounded with a border in such a way that the whole square is also magic. In this manner from the magic square of the 3rd order we can build up successively squares of the orders 5, 7, 9, &c., that is, any odd magic square. Similarly from the magic square of the 4th order we can build up successively any higher even magic square. If we construct a magic square of the first n 2 numbers by bordering a magic square of (n − 2)2 numbers, the usual process is to reserve for the 4(n − 1) numbers in the border the first 2(n − 1) natural numbers and the last 2(n − 1) numbers. Now the sum of the numbers in each line of a square of the order (n − 2) is 1 2 (n − 2){(n − 2)2 + 1}, and the average is 1 2 {(n − 2)2 + 1}. Similarly the average number in a square of the nth order is 1 2 (n 2 +1). The difference of these is 2(n−1). We begin then by taking any magic square of the order (n − 2), and we add to every number in it 2(n − 1); this makes the average number 1 2 (n 2 + 1). The numbers reserved for the border occur in pairs, n 2 and 1, n 2−1 and 2, n 2 −2 and 3, &c., such that the average of each pair is 1 2 (n 2 +1), and they must be bordered on the square so that these numbers are opposite to one another. Thus the bordered square will be necessarily magic, provided that the sum of the numbers in two adjacent sides of the external border is correct. The arrangement of the numbers in the borders will be somewhat facilitated if the number n 2 + 1 − p (which has to be placed opposite to the number p) is denoted by p, but it is not worth while going into further details here. It will illustrate sufficiently the general method if I explain how the square in figure xii is constructed. A magic square of the third order is formed by De la Loubère's rule, and to every number in it 8 is added: the result is the inner square in figure xii. The numbers not used are 25 and 1, 24 and 2, 23 and 3, 22 and 4, 21 and 5, 20 and 6, 19 and 7, 18 and 8. The sum of each pair is 26, and obviously they must be 136 MAGIC SQUARES. [CH. V placed at opposite ends of any line. I believe that with a little patience a magic square of any order can be thus built up, and of course it will have the property that, if each border is successively stripped off, the square will still remain magic. Some examples are given by Violle. This is the method of construction commonly adopted by self-taught mathematicians, many 1 2 19 20 23 18 16 9 14 8 21 11 13 15 5 22 12 17 10 4 3 24 7 6 25 Bordered Magic Square. Figure xii. 7 20 3 11 24 13 21 9 17 5 19 2 15 23 6 25 8 16 4 12 1 14 22 10 18 Nasik Magic Square. Figure xiii. of whom seem to think that the empirical formation of such squares is a valuable discovery. There are magic circles, rectangles, crosses, diamonds, stars, and other figures: also magic cubes, cylinders, and spheres. The theory of the construction of such figures is of no value, and I cannot spare the space to describe rules for forming them. Hyper-Magic Squares. In recent times attention has been mainly concentrated on the formation of magic squares with the imposition of

additional conditions; some of the resulting problems involve mathematical difficulties of a high order. Nasik Squares. In one species of hyper-magic squares the squares are formed so that the sums of the numbers along all the rows and columns, both diagonals, and all the broken diagonals are the same. In England these are called nasik squares or pan-diagonal magic squares: in France carrés diaboliques or carrés magiquement magiques. These squares were mentioned by De la Hire, Sauveur, and Euler; but the theory is mainly due to Mr A.H. Frost, who has expounded it in the memoirs mentioned in the footnote on page 123, and to M. Frolow, who treated it in two memoirs, St Petersburg, 1884, and Paris, 1886. Of course a nasik square can be divided by a vertical or horizontal cut and the pieces interchanged without affecting the magical property. By CH. V] MAGIC PENCILS. 137 one vertical and one horizontal transposition of this kind any number can be moved to any specified cell. A nasik square of the fourth order is represented in figure ii on page 121, and one of the fifth order is represented in figure xiii on the preceding page. Nasik squares of the order 6n±1 can be constructed by rules analogous to those given by De la Loubère, except that a knight's and not a bishop's move must be used in connecting cells filled by consecutive numbers and that for orders higher than five special rules for going from the cell occupied by the number kn to that occupied by the number kn + 1 have to be laid down. Doubly-Magic Squares. In another species of hyper-magic squares the problem is to construct a magic square of the nth order in such a way that if the number in each cell is replaced by its mth power the 5 31 35 60 57 34 8 30 19 9 53 46 47 56 18 12 16 22 42 39 52 61 27 1 63 37 25 24 3 14 44 50 26 4 64 49 38 43 13 23 41 51 15 2 21 28 62 40 54 48 20 11 10 17 55 45 36 58 6 29 32 7 33 59 A Doubly-Magic Square. Figure xiv. resulting square shall also be magic. Here for example (see figure xiv) is a magic square* of the eighth order, the sum of the numbers in each line being equal to 260, so constructed that if the number in each cell is replaced by its square the resulting square is also magic (the sum of the numbers in each line being equal to 11180). Magic Pencils. Hitherto I have concerned myself with numbers arranged in lines. By reciprocating the figures composed of the * See M. Coccoz in L'Illustration, May 29, 1897. 138 MAGIC SQUARES. [CH. V points on which the numbers are placed we obtain a collection of lines forming pencils, and, if these lines be numbered to correspond with the points, the pencils will be magic* . Thus, in a magic square of the nth order, we arrange n 2 consecutive numbers to form 2n + 2 lines, each containing n numbers so that the sum of the numbers in each line is the same. Reciprocally we can arrange n 2 lines, numbered consecutively to form 2n + 2 pencils, each containing n lines, so that in each pencil the sum of the numbers designating the lines is the same. For instance, figure xv represents a magic square of 64 consecutive 1 2 62 61 60 59 7 8 9 10 54 53 52 51 15 16 48 47 19 20 21 22 42 41 40 39 27 28 29 30 34 33 32 31 35 36 37 38 26 25 24 23 43 44 45 46 18 17 49 50 14 13 12 11 55 56 57 58 6 5 4 3

63 64 Figure xv. numbers arranged to form 18 lines, each of 8 numbers. Reciprocally, figure xvi represents 64 lines arranged to form 18 pencils, each of 8 lines. The method of construction is fairly obvious. The eight-rayed pencil, vertex O, is cut by two parallels perpendicular to the axis of the pencil, and all the points of intersection are joined cross-wise. This gives 8 pencils, with vertices A, B, . . . , H; 8 pencils, with vertices A' , . . . H' ; one pencil with its vertex at O; and one pencil with its vertex on the axis of the last-named pencil. The sum of the numbers in each of the 18 lines in figure xv is the same. To make figure xvi correspond to this we must number the lines in the pencil A from left to right, 1, 9, . . . , 57, following the order of the numbers in the first column of the square: the lines in pencil B must be numbered similarly to correspond to the numbers in the second column of the square, and so on. To prevent confusion in the figure I * See Magic-Reciprocals by G. Frankenstein, Cincinnati, 1875. CH. V] MAGIC PENCILS. 139 O AB C DEF G H A' H' Figure xvi. have not inserted the numbers, but it will be seen that the method of construction ensures that the sum of the 8 numbers which designate the lines in each of these 18 pencils is the same. We can proceed a step further, if the resulting figure is cut by two other parallel lines perpendicular to the axis, and if the points of their intersection with the cross-joins be joined cross-wise, these new cross-joins will intersect on the axis of the original pencil or on lines 140 MAGIC SQUARES. [CH. V perpendicular to it. The whole figure will now give 8 3 lines, arranged in 244 pencils each of 8 rays, and will be the reciprocal of a magic cube of the 8th order. If we reciprocate back again we obtain a representation in a plane of a magic cube. Magic Square Puzzles. Many empirical problems, closely related to magic squares, will suggest themselves; but most of them are more correctly described as ingenious puzzles than as mathematical recreations. The following will serve as specimens. Magic Card Square* . The first of these is the familiar problem of placing the sixteen court cards (taken out of a pack) in the form of a square so that no row, no column, and neither of the diagonals shall contain more than one card of each suit and one card of each rank. The solution presents no difficulty, and is indicated in figure xviii on the next page. Euler's Officers Problem† . A similar problem, proposed by Euler in 1779, consists in arranging, if it be possible, thirty-six officers taken from six regiments—the officers being in six groups, each consisting of six officers of equal rank, one drawn from each regiment; say officers of rank a, b, c, d, e, f, drawn from the 1st, 2nd, 3rd, 4th, 5th, and 6th regiments—in a solid square formation of six by six, so that each row and each file shall contain one and only one officer of each rank and one and only one officer from each regiment. The problem is insoluble. Extension of Euler's Problem. More generally we may investigate the arrangement on a chess-board, containing n 2 cells, of n 2 counters (the counters being divided into n groups, each group consisting of n counters of the same colour numbered consecutively 1, 2, . . . , n) so that each row and each column

shall contain no two counters of the same colour or marked with the same number. For instance, if n = 3, with three red counters a1, a2, a3, three white counters b1, b2, b3, and three black counters c1, c2, c3, we can satisfy the conditions by arranging them as in figure xvii on the facing page. If n = 4, then with counters a1, a2, a3, a4; b1, b2, b3, b4; c1, c2, * Ozanam, 1723 edition, vol. iv, p. 434. † Euler's Commentationes Arithmeticae, St Petersburg, 1849, vol ii, pp. 302–361. See also a paper by G. Tarry in the Comptes rendus of the French Association for the Advancement of Science, Paris, 1900, vol. ii, pp. 170–203; and various notes in L'Intermédiaire des mathématiciens, Paris, vol. iii, 1896, pp. 17, 90; vol. v, 1898, pp. 83, 176, 252, vol. vi, 1899, p. 251; vol. vii, 1900, pp. 14, 311. CH. V] MAGIC PUZZLES.. 141 c3, c4; d1, d2, d3, d4, we can arrange them as in figure xviii below. A solution when n = 5 is indicated in figure xix. a1 b2 c3 b2 c1 a2 c3 a3 b1 Figure xvii. a1 b2 c3 d4 c4 d3 a2 b1 d2 c1 b4 a3 b3 a4 d1 c2 Figure xviii. a1 b2 c3 d4 e5 b5 c1 d2 e3 a4 c4 d5 e1 a2 b3 d3 e4 a5 b1 c2 e2 a3 b4 c5 d1 Figure xix. The problem is soluble if n is odd or if n is of the form 4m. If solutions when n = a and when n = b are known, a solution when n = ab can be written down at once. The theory is closely connected with that of magic squares and need not be here discussed further. Magic Domino Squares. Analogous problems can be made with dominoes. An ordinary set of dominoes, ranging from double zero to double six, contains 28 dominoes. Each domino is a rectangle formed by fixing two small square blocks together side by side: of these 56 blocks, eight are blank, on each of eight of them is one pip, on each of another eight of them are two pips, and so on. It is required to arrange the dominoes so that the 56 blocks form a square of 7 by 7 bordered by one line of 7 blank squares and so that the sum of the pips in each row, each column, and in the two diagonals of the square is equal to 24. A solution* is given on the following page. Similarly, a set of dominoes, ranging from double zero to double n, contains 1 2 (n + 1)(n + 2) dominoes and therefore (n + 1)(n + 2) blocks. Can these dominoes be arranged in the form of a square of (n + 1)2 cells, bordered by a row of blanks, so that the sum of the pips in each row, each column, and in the two diagonals of the square is equal to 1 2 n(n + 2)? Magic Coin Squares† . There are somewhat similar questions concerned with coins. Here is one applicable to a square of the third order divided into nine cells, as in figure xvii above. If a five-shilling piece is placed in the middle cell c1 and a florin in the cell below it, namely, in a3 it is required to place the fewest possible current English coins in * See L'Illustration, July 10, 1897. † See The Strand Magazine, London, December, 1896, pp. 720, 721. 142 MAGIC SQUARES. [CH. V Magic Domino Square. the remaining seven cells so that in each cell there is at least one coin, so that the total value of the coins in every cell is different, and so that the sum of the values of the coins in each row, column, and diagonal is fifteen shillings: it will be found that thirteen additional coins will suffice. A similar problem is to place ten current English postage stamps, all but two

being different, in the nine cells so that the sum of the values of the stamps in each row, column, and diagonal is ninepence. CHAPTER VI. UNICURSAL PROBLEMS. I propose to consider in this chapter some problems which arise out of the theory of unicursal curves. I shall commence with Euler's Problem and Theorems, and shall apply the results briefly to the theories of Mazes and Geometrical Trees. The reciprocal unicursal problems of the Hamilton Game and the Knight's Path on a Chess-board will be discussed in the latter half of the chapter. Euler's Problem. Euler's problem has its origin in a memoir† presented by him in 1736 to the St Petersburg Academy, in which he solved a question then under discussion as to whether it was possible to take a walk in the town of Königsberg in such a way as to cross every bridge in it once and only once. The town is built near the mouth of the river Pregel, which there takes the form indicated on the following page and includes the island of Kneiphof. In 1759 there were (and according to Baedeker there are still) seven bridges in the positions shown in the diagram, and it is easily seen that with such an arrangement the problem is insoluble. Euler however did not confine himself to the case of Königsberg, but discussed the general problem of any number of islands connected in any way by bridges. It is evident that the question will not be affected if † Solutio problematis ad Geometriam situs pertinentis, Commentarii Academiae Scientiarum Petropolitanae for 1736, St Petersburg, 1741, vol. viii, pp. 128–140. This has been translated into French by M. Ch. Henry; see Lucas, vol. i, part 2, pp. 21–33. 143 144 UNICURSAL PROBLEMS. [CH. VI we suppose the islands to diminish to points and the bridges to lengthen out. In this way we ultimately obtain a geometrical figure or network. In the Königsberg problem this figure is of the shape indicated below, the areas being represented by the points A, B, C, D, and the bridges being represented by the lines l, m, n, p, q, r, s. A B C D s r l qp mn Euler's problem consists therefore in finding whether a given geometrical figure can be described by a point moving so as to traverse every line in it once and only once. A more general question is to determine how many strokes are necessary to describe such a figure so that no line is traversed twice: this is covered by the rules hereafter given. The figure may be either in three or in two dimensions, and it may be represented by lines, straight, curved, or tortuous, joining a number of given points, or a model may be constructed by taking a number of rods or pieces of string furnished at each end with a hook so as to allow of any number of them being connected together at one point. The theory of such figures is included as a particular case in the CH. VI] EULER'S PROBLEM. 145 propositions proved by Listing in his Topologie* . I shall, however, adopt here the methods of Euler, and I shall begin by giving some definitions, as it will enable me to put the argument in a more concise form. A node (or isle) is a point to or from which lines are drawn. A branch (or bridge or path) is a line connecting two consecutive nodes. An end (or hook) is the point at each termination of a branch. The order of a node is

the number of branches which meet at it. A node to which only one branch is drawn is a free node or a free end. A node at which an even number of branches meet is an even node: evidently the presence of a node of the second order is immaterial. A node at which an odd number of branches meet is an odd node. A figure is closed if it has no free end: such a figure is often called a closed network. A route consists of a number of branches taken in consecutive order and so that no branch is traversed twice. A closed route terminates at the point from which it started. A figure is described unicursally when the whole of it is traversed in one route. The following are Euler's results. (i) In a closed network the number of odd nodes is even. (ii) A figure which has no odd node can be described unicursally, in a re-entrant route, by a moving point which starts from any point on it. (iii) A figure which has two and only two odd notes can be described unicursally by a moving point which starts from one of the odd nodes and finishes at the other. (iv) A figure which has more than two odd nodes cannot be described completely in one route; to which Listing added the corollary that a figure which has 2n odd nodes, and no more, can be described completely in n separate routes. I now proceed to prove these theorems. First. The number of odd nodes in a closed network is even. Suppose the number of branches to be b. Therefore the number of hooks is 2b. Let kn be the number of nodes of the nth order. Since a node of the nth order is one at which n branches meet, there are n hooks there. Also since the figure is closed, n cannot be less than 2. ∴ 2k2 + 3k3 + 4k4 + · · · + nkn + · · · = 2b . Hence 3k3 + 5k5 + · · · is even. ∴ k3 + k5 + · · · is even. Second. A figure which has no odd node can be described unicursally in a re-entrant route. * Die Studien, Göttingen, 1847, part x. See also Tait on Listing's Topologie, Philosophical Magazine, London, January, 1884, series 5, vol. xvii, pp. 30–46. 146 UNICURSAL PROBLEMS. [CH. VI Since the route is to be re-entrant it will make no difference where it commences. Suppose that we start from a node A. Every time our route takes us through a node we use up one hook in entering it and one in leaving it. There are no odd nodes, therefore the number of hooks at every node is even: hence, if we reach any node except A, we shall always find a hook which will take us into a branch previously untraversed. Hence the route will take us finally to the node A from which we started. If there are more than two hooks at A, we can continue the route over one of the branches from A previously untraversed, but in the same way as before we shall finally come back to A. It remains to show that we can arrange our route so as to make it cover all the branches. Suppose each branch of the network to be represented by a string with a hook at each end, and that at each node all the hooks there are fastened together. The number of hooks at each node is even, and if they are unfastened they can be re-coupled together in pairs, the arrangement of the pairs being immaterial. The whole network will then form one or more closed curves, since now each node consists merely of two ends hooked together. If this random coupling gives us one single

curve then the proposition is proved; for starting at any point we shall go along every branch and come back to the initial point. But if this random coupling produces anywhere an isolated loop, L, then where it touches some other loop, M, say at the node P, unfasten the four hooks there (viz. two of the loop L and two of the loop M) and re-couple them in any other order: then the loop L will become a part of the loop M. In this way, by altering the couplings, we can transform gradually all the separate loops into parts of only one loop. For example, take the case of three isles, A, B, C, each connected with both the others by two bridges. The most unfavourable way of recoupling the ends at A, B, C would be to make ABA, ACA, and BCB separate loops. The loops ABA and ACA are separate and touch at A; hence we should re-couple the hooks at A so as to combine ABA and ACA into one loop ABACA. Similarly, by re-arranging the couplings of the four hooks at B, we can combine the loop BCB with ABACA and thus make only one loop. I infer from Euler's language that he had attempted to solve the problem of giving a practical rule which would enable one to describe such a figure unicursally without knowledge of its form, but that in this CH. VI] EULER'S PROBLEM. 147 B C A he was unsuccessful. He however added that any geometrical figure can be described completely in a single route provided each part of it is described twice and only twice, for, if we suppose that every branch is duplicated, there will be no odd nodes and the figure is unicursal. In this case any figure can be described completely without knowing its form: rules to effect this are given below. Third. A figure which has two and only two odd nodes can be described unicursally by a point which starts from one of the odd nodes and finishes at the other odd node. This at once reduces to the second theorem. Let A and Z be the two odd nodes. First, suppose that Z is not a free end. We can, of course, take a route from A to Z; if we imagine the branches in this route to be eliminated, it will remove one hook from A and make it even, will remove two hooks from every node intermediate between A and Z and therefore leave each of them even, and will remove one hook from Z and therefore will make it even. All the remaining network is now even: hence, by Euler's second proposition, it can be described unicursally, and, if the route begins at Z, it will end at Z. Hence, if these two routes are taken in succession, the whole figure will be described unicursally, beginning at A and ending at Z. Second, if Z is a free end, then we must travel from Z to some node, Y , at which more than two branches meet. Then a route from A to Y which covers the whole figure exclusive of the path from Y to Z can be determined as before and must be finished by travelling from Y to Z. Fourth. A figure having 2n odd nodes, and no more, can be described completely in n separate routes. If any route starts at an odd node, and if it is continued until it reaches a node where no fresh path is open to it, this latter node must be an odd one. For every time we enter an even node there is necessarily 148 UNICURSAL PROBLEMS. [CH. VI a way out of it; and similarly every time we go through an odd node we use up one

hook in entering and one hook in leaving, but whenever we reach it as the end of our route we use only one hook. If this route is suppressed there will remain a figure with 2n − 2 odd nodes. Hence n such routes will leave one or more networks with only even nodes. But each of these must have some node common to one of the routes already taken and therefore can be described as a part of that route. Hence the complete passage will require n and not more than n routes. It follows, as stated by Euler, that, if there are more than two odd nodes, the figure cannot be traversed completely in one route. The Königsberg bridges lead to a network with four odd nodes; hence, by Euler's fourth proposition, it cannot be described unicursally in a single journey, though it can be traversed completely in two separate routes. The first and second diagrams figured below contain only even nodes, and therefore each of them can be described unicursally. The first of these—a re-entrant pentagon—was one of the Pythagorean symbols. The other is the so-called sign-manual of Mohammed, said to have been originally traced in the sand by the point of his scimetar without taking the scimetar off the ground or retracing any part of the figure—which, as it contains only even nodes, is possible. The third diagram is taken from Tait's article: it contains only two odd nodes, and therefore can be described unicursally if we start from one of them and finish at the other. As other examples I may note that the geometrical figure formed by taking a (2n + 1)gon and joining every angular point with every other angular point is unicursal. On the other hand a chess-board, divided as usual by straight lines into 64 cells, has 28 odd nodes and CH. VI] MAZES AND LABYRINTHS.. 149 53 even nodes: hence it would require 14 separate pen-strokes to trace out all the boundaries without going over any more than once. Again, the diagram on page 102 has 20 odd nodes and therefore would require 10 separate pen-strokes to trace it out. It is well known that a curve which has as many nodes as is consistent with its degree is unicursal. Mazes. Everyone has read of the labyrinth of Minos in Crete and of Rosamund's Bower. A few modern mazes exist here and there—notably one, which is a very poor specimen of its kind, at Hampton Court—and in one of these, or at any rate on a drawing of one, most of us have threaded our way to the interior. I proceed now to consider the manner in which any such construction may be completely traversed even by one who is ignorant of its plan. The theory of the description of mazes is included in Euler's theorems given above. The paths in the maze are what previously we have termed branches, and the places where two or more paths meet are nodes. The entrance to the maze, the end of a blind alley, and the centre of the maze are free ends and therefore odd nodes. If the only odd nodes are the entrance to the maze and the centre of it–which will necessitate the absence of all blind alleys–the maze can be described unicursally. This follows from Euler's third proposition. Again, no matter how many odd nodes there may be in a maze, we can always find a route which will take us from the entrance to the centre without retracing our steps, though such

a route will take us through only a part of the maze. But in neither of the cases mentioned in this paragraph can the route be determined without a plan of the maze. A plan is not necessary, however, if we make use of Euler's suggestion, and suppose that every path in the maze is duplicated. In this case we can give definite rules for the complete description of the whole of any maze, even if we are entirely ignorant of its plan. Of course to walk twice over every path in a labyrinth is not the shortest way of arriving at the centre, but, if it is performed correctly, the whole maze is traversed, the arrival at the centre at some point in the course of the route is certain, and it is impossible to lose one's way. I need hardly explain why the complete description of such a duplicated maze is possible, for now every node is even, and hence, by Euler's second proposition, if we begin at the entrance we can traverse 150 UNICURSAL PROBLEMS. [CH. VI the whole maze; in so doing we shall at some point arrive at the centre, and finally shall emerge at the point from which we started. This description will require us to go over every path in the maze twice, and as a matter of fact the two passages along any path will be always made in opposite directions. If a maze is traced on paper, the way to the centre is generally obvious, but in an actual labyrinth it is not so easy to find the correct route unless the plan is known. In order to make sure of describing a maze without knowing its plan it is necessary to have some means of marking the paths which we traverse and the direction in which we have traversed them—for example, by drawing an arrow at the entrance and end of every path traversed, or better perhaps by marking the wall on the right-hand side, in which case a path may not be entered when there is a mark on each side of it. If we can do this, and if when a node is reached, we take, if it be possible, some path not previously used, or, if no other path is available, we enter on a path already traversed once only, we shall completely traverse any maze in two dimensions* . Of course a path must not be traversed twice in the same direction, a path already traversed twice (namely, once in each direction) must not be entered, and at the end of a blind alley it is necessary to turn back along the path by which it was reached. I think most people would understand by a maze a series of interlacing paths through which some route can be obtained leading to a space or building at the centre of the maze. I believe that few, if any, mazes of this type existed in classical or medieval times. One class of what the ancients called mazes or labyrinths seems to have comprised any complicated building with numerous vaults and passages† . Such a building might be termed a labyrinth, but it is not what is usually understood by the word. The above rules would enable anyone to traverse the whole of any structure of this kind. I do not know if there are any accounts or descriptions of Rosamund's Bower * See Le problème des labyrinthes by G. Tarry, Nouvelles Annales de mathématiques, May, 1895, series 3, vol. xiv. † For instance, see the descriptions of the labyrinth at Lake Moeris given by Herodotus, bk. ii, c. 148; Strabo, bk. xvii, c. 1, art. 37; Diodorus,

bk. i, cc. 61, 66; and Pliny, Hist. Nat., bk. xxxvi, c. 13, arts. 84–89. On these and other references see A. Wiedemann, Herodots zweites Buch, Leipzig, 1890, p. 522 et seq. See also Virgil, Aeneid, bk. v, c. v, 588; Ovid, Met., bk. viii, c. 5, 159; Strabo, bk. viii, c. 6. CH. VI] MAZES AND LABYRINTHS.. 151 other than those by Drayton, Bromton, and Knyghton: in the opinion of some, these imply that the bower was merely a house, the passages in which were confusing and ill-arranged. Another class of ancient mazes consisted of a tortuous path confined to a small area of ground and leading to a place or shrine in the centre* . This is a maze in which there is no chance of taking a wrong turning; but, as the whole area can be occupied by the windings of one path, the distance to be traversed from the entrance to the centre may be considerable, even though the piece of ground covered by the maze is but small. The traditional form of the labyrinth constructed for the Minotaur is a specimen of this class. It was delineated on the reverses of the coins of Cnossus, specimens of which are not uncommon; one form of it is indicated in the accompanying diagram (figure i). The design really is the same as that drawn in figure ii, as can be easily seen by bending round a circle the rectangular figure there given. Mr Inwards has suggested† that this design on the coins of Cnossus may be a survival from that on a token given by the priests as a clue to Figure i. Figure ii. the right path in the labyrinth there. Taking the circular form of the design shown above he supposed each circular wall to be replaced by two equidistant walls separated by a path, and thus obtained a maze to which the original design would serve as the key. The route thus indicated may be at once obtained by noticing that when a node is reached (i.e. a point where there is a choice of paths) the path to be * On ancient and medieval labyrinths—particularly of this kind—see an article by Mr E. Trollope in The Archaeological Journal, 1858, vol. xv, pp. 216–235, from which much of the historical information given above is derived † Knowledge, London, October, 1892. 152 UNICURSAL PROBLEMS. [CH. VI taken is that which is next but one to that by which the node was approached. This maze may be also threaded by the simple rule of always following the wall on the right-hand side or always that on the left-hand side. The labyrinth may be somewhat improved by erecting a few additional barriers, without affecting the applicability of the above rules, but it cannot be made really difficult. This makes a pretty toy, but though the conjecture on which it is founded is ingenious it must be regarded as exceedingly improbable. Another suggestion is that the curved line on the reverse of the coins indicated the form of the rope held by those taking part in some rhythmic dance; while others consider that the form was gradually evolved from the widely prevalent svastika. Copies of the maze of Cnossus were frequently engraved on Greek and Roman gems; similar but more elaborate designs are found in numerous Roman mosaic pavements* . A copy of the Cretan labyrinth was embroidered on many of the state robes of the later Emperors, and, apparently thence, was copied on to the walls and

floors of various churches† . At a later time in Italy and in France these mural and pavement decorations were developed into scrolls of great complexity, but consisting, as far as I know, always of a single line. Some of the best specimens now extant are on the walls of the cathedrals at Lucca, Aix in Provence, and Poitiers; and on the floors of the churches of Santa Maria in Trastevere at Rome, San Vitale at Ravenna, Notre Dame at St Omer, and the cathedral at Chartres. It is possible that they were used to represent the journey through life as a kind of pilgrim's progress. In England these mazes were usually, perhaps always, cut in the turf adjacent to some religious house or hermitage: and there are some slight reasons for thinking that, when traversed as a religious exercise, a pater or ave had to be repeated at every turning. After the Renaissance, such labyrinths were frequently termed Troy-towns or Julian's bowers. Some of the best specimens, which are still extant, are those at Rockliff Marshes, Cumberland; Asenby, Yorkshire; Alkborough, Lincolnshire; Wing, Rutlandshire; Boughton-Green, Northamptonshire; Comberton, Cambridgeshire; Saffron Walden, Essex; and Chilcombe, near Winchester. The modern maze seems to have been introduced—probably from Italy—during the Renaissance, and many of the palaces and large * See ex. gr. Breton's Pompeia, p. 303. † Ozanam, Graphia aureae urbis Romae, pp. 92, 178. CH. VI] MAZES AND LABYRINTHS.. 153 houses built in England during the Tudor and the Stuart periods had labyrinths attached to them. Those adjoining the royal palaces at Southwark, Greenwich, and Hampton Court were particularly well known from their vicinity to the capital. The last of these was designed by London and Wise in 1690, for William III, who had a fancy for such conceits: a plan of it is given in various guide-books. For the majority Maze at Hampton Court. of the sight-seers who enter, it is sufficiently elaborate; but it is an indifferent construction, for it can be described completely by always following the hedge on one side (either the right hand or the left hand), and no node is of an order higher than three. Unless at some point the route to the centre forks and subsequently the two forks reunite, forming a loop in which the centre of the maze is situated, the centre can be reached by the rule just given, namely, by following the wall on one side—either on the right hand or on the left hand. No labyrinth is worthy of the name of a puzzle which can be threaded in this way. Assuming that the path forks as described above, the more numerous the nodes and the higher their order the more difficult will be the maze, and the difficulty might be increased considerably by using bridges and tunnels so as to construct a labyrinth in three dimensions. In an ordinary garden and on a small piece of ground, often of an inconvenient shape, it is not easy to make a maze which fulfils these conditions. Here on the following page is a plan of one which I put up in my own garden on a plot of ground which would not allow of more than 36 by 23 paths, but it will be noticed that none of the nodes are of a high order. 154 UNICURSAL PROBLEMS. [CH. VI Geometrical Trees. Euler's original investigations were confined to a

closed network. In the problem of the maze it was assumed that there might be any number of blind alleys in it, the ends of which formed free nodes. We may now progress one step farther, and suppose that the network or closed part of the figure diminishes to a point. This last arrangement is known as a tree. The number of unicursal descriptions necessary to completely describe a tree is called the base of the ramification. We can illustrate the possible form of these trees by rods, having a hook at each end. Starting with one such rod, we can attach at either end one or more similar rods. Again, on any free hook we can attach one or more similar rods, and so on. Every free hook, and also every point where two or more rods meet, are what hitherto we have called nodes. The rods are what hitherto we have termed branches or paths. The theory of trees—which already plays a somewhat important part in certain branches of modern analysis, and possibly may contain the key to certain chemical and biological theories—originated in a memoir by Cayley* , written in 1856. The discussion of the theory has * Philosophical Magazine, March, 1857, series 4, vol. xiii, pp. 172–176; or Collected Works, Cambridge, 1890, vol. iii, no. 203, pp. 242–346: see also the paper on double partitions, Philosophical Magazine, November, 1860, series 4, vol. xx, pp. 337–341. On the number of trees with a given number of nodes, see the CH. VI] THE HAMILTONIAN GAME. 155 been analytical rather than geometrical. I content myself with noting the following results. The number of trees with n given nodes is n n−2 . If An is the number of trees with n branches, and Bn the number of trees with n free branches which are bifurcations at least, then (1 − x) −1 (1 − x 2) −A1 (1 − x 3) −A2 · · · = 1 + A1x + A2x 2 + A3x 3 + · · · , (1 − x) −1 (1 − x 2) −B2 (1 − x 3) −B3 · · · = 1 + x + 2B2x 2 + 2B3x 3 + · · · . Using these formulae we can find successively the values of A1, A2, . . . , and B1, B2, ... The values of An when n = 2, 3, 4, 5, 6, 7, are 2, 4, 9, 20, 48, 115; and of Bn are 1, 2, 5, 12, 33, 90. I turn next to consider some problems where it is desired to find a route which will pass once and only once through each node of a given geometrical figure. This is the reciprocal of the problem treated in the first part of this chapter, and is a far more difficult question. I am not aware that the general theory has been considered by mathematicians, though two special cases—namely, the Hamiltonian (or Icosian) Game and the Knight's Path on a Chess-Board—have been treated in some detail; and I confine myself to a discussion of these. The Hamiltonian Game. The Hamiltonian Game consists in the determination of a route along the edges of a regular dodecahedron which will pass once and only once through every angular point. Sir William Hamilton* , who invented this game—if game is the right term for it—denoted the twenty angular points on the solid by letters which stand for various towns. The thirty edges constitute the only possible paths. The inconvenience of using a solid is considerable, and the dodecahedron may be represented conveniently in perspective by a flat board marked as shown in the first of the annexed diagrams. The Quarterly Journal of

Mathematics, London, 1889, vol. xxiii, pp. 376–378. The connection with chemistry was first pointed out in Cayley's paper on isomers, Philosophical Magazine, June, 1874, series 4, vol. xlvii, pp. 444–447, and was treated more fully in his report on trees to the British Association in 1875, Reports, pp. 257–305. * See Quarterly Journal of Mathematics, London, 1862, vol. v, p. 305; or Philosophical Magazine, January, 1884, series 5, vol. xvii, p. 42; also Lucas, vol. ii, part vii. 156 UNICURSAL PROBLEMS. [CH. VI second and third diagrams will answer our purpose equally well and are easier to draw. A G J L N P Q R S T B C D E F H M K O U A B C D E F G H J K L M N O P Q R S T U A B C D E F U The first problem is go "all round the world," that is, starting from any town, to go to every other town once and only once and to return to the initial town; the order of the n towns to be first visited being assigned, where n is not greater than five. Hamilton's rule for effecting this was given at the meeting in 1857 of the British Association at Dublin. At each angular point there are three and only three edges. Hence, if we approach a point by one edge, the only routes open to us are one to the right, denoted by r, and one to the left, denoted by l. It will be found that the operations indicated on opposite sides of the following equalities are equivalent, lr2 l = rlr, rl2 r = lrl, lr3 l = r 2 , rl3 r = l 2 . Also the operation l 5 or r 5 brings us back to the initial point: we may represent this by the equations l 5 = 1, r5 = 1 . To solve the problem for a figure having twenty angular points we must deduce a relation involving twenty successive operations, the total effect of which is equal to unity. By repeated use of the relation l 2 = rl3 r we see that 1 = l 5 = l 2 l 3 = (rl3 r)l 3 = {rl3 } 2 = {r(rl3 r)l} 2 = {r 2 l 3 rl} 2 = {r 2 (rl3 r)lrl} 2 = {r 3 l 3 rlrl} 2 . Therefore {r 3 l 3 (rl) 2 } 2 = 1 . . . . . (i), and similarly {l 3 r 3 (lr) 2 } 2 = 1 . . . . . (ii). CH. VI] THE HAMILTONIAN GAME. 157 Hence on a dodecahedron either of the operations r r r l l l r l r l r r r l l l r l r l . . . . . (i), l l l r r r l r l r l l l r r r l r l r . . . . . (ii), indicates a route which takes the traveller through every town, The arrangement is cyclical, and the route can be commenced at any point in the series of operations by transferring the proper number of letters from one end to the other. The point at which we begin is determined by the order of certain towns which is given initially. Thus, suppose that we are told that we start from F and then successively go to B, A, U, and T, and we want to find a route from T through all the remaining towns which will end at F. If we think of ourselves as coming into F from G, the path F B would be indicated by l, but if we think of ourselves as coming into F from E, the path F B would be indicated by r. The path from B to A is indicated by l, and so on. Hence our first paths are indicated either by l l l r or by r l l r. The latter operation does not occur either in (i) or in (ii), and therefore does not fall within our solutions. The former operation may be regarded either as the 1st, 2nd, 3rd, and 4th steps of (ii), or as the 4th, 5th, 6th, and 7th steps of (i). Each of these leads to a route which satisfies the problem. These routes are F B A U T P O N C D E J K L M Q R S H G F , and F B A U T S R K L M Q P O N C D E J H G F . It is convenient to

make a mark or to put down a counter at each corner as soon as it is reached, and this will prevent our passing through the same town twice. A similar game may be played with other solids provided that at each angular point three and only three edges meet. Of such solids a tetrahedron and a cube are the simplest instances, but the reader can make for himself any number of plane figures representing such solids similar to those drawn on the preceding page. Some of these were indicated by Hamilton. In all such cases we must obtain from the formulae analogous to those given above cyclical relations like (i) or (ii) there given. The solution will then follow the lines indicated above. This method may be used to form a rule for describing any maze in which no node is of an order higher than three. 158 UNICURSAL PROBLEMS. [CH. VI For solids having angular points where more than three edges meet—such as the octahedron where at each angular point four edges meet, or the icosahedron where at each angular point five edges meet— we should at each point have more than two routes open to us; hence (unless we suppress some of the edges) the symbolical notation would have to be extended before it could be applied to these solids. I offer the suggestion to anyone who is desirous of inventing a new game. Another and a very elegant solution of the Hamiltonian dodecahedron problem has been given by M. Hermary. It consists in unfolding the dodecahedron into its twelve pentagons, each of which is attached to the preceding one by only one of its sides; but the solution is geometrical, and not directly applicable to more complicated solids. Hamilton suggested as another problem to start from any town, to go to certain specified towns in an assigned order, then to go to every other town once and only once, and to end the journey at some given town. He also suggested the consideration of the way in which a certain number of towns should be blocked so that there was no passage through them, in order to produce certain effects. These problems have not, so far as I know, been subjected to mathematical analysis. Knight's Path on a Chess-Board. Another geometrical problem on which a great deal of ingenuity has been expended, and of a kind somewhat similar to the Hamiltonian game, consists in moving a knight on a chess-board in such a manner that it shall move successively on to every cell* once and only once. The literature on this subject is so extensive† that I make no pretence to give a full account of the various methods for solving the problem, and I shall content myself by putting together a few notes on some of the solutions I have come across, particularly on those due to De Moivre, Euler, Vandermonde, Warnsdorff, and Roget. On a board containing an even number of cells the path may or may not be re-entrant, but on a board containing an odd number of * The 64 small squares into which a chess-board is divided are termed cells. † For a bibliography see A. van der Linde, Geschichte und Literatur des Schachspiels, Berlin, 1874, vol. ii, pp. 101–111. On the problem see a memoir by P. Volpicelli in Atti della Reale Accademia dei Lincei, Rome, 1872, vol. xxv, pp. 87–162: also Applications de l'Analyse

Mathématique au Jeu des échecs, by C.F. de Jaenisch, 3 vols., St Petersburg, 1862–3; and General Parmentier, Association Française pour l'avancement des Sciences, 1891, 1892, 1894. CH. VI] KNIGHT'S PATH ON A CHESS-BOARD. 159 cells it cannot be re-entrant. For, if a knight begins on a white cell, its first move must take it to a black cell, the next to a white cell, and so on. Hence, if its path passes through all the cells, then on a board of an odd number of cells the last move must leave it on a cell of the same colour as that on which it started, and therefore these cells cannot be connected by one move. The earliest solutions of which I have any knowledge are those given about the end of the seventeenth century by De Montmort and De Moivre* . They apply to the ordinary chess-board of 64 cells, and depend on dividing (mentally) the board into an inner square containing sixteen cells surrounded by an outer ring of cells two deep. If initially the knight is placed on a cell in the outer ring, it moves round that ring always in the same direction so as to fill it up completely—only going into the inner square when absolutely necessary. When the outer ring is filled up the order of the moves required for filling the remaining cells presents but little difficulty. If initially the knight is placed on the inner square the process must be reversed. The method can be applied to square and rectangular boards of all sizes. It is illustrated sufficiently by De Moivre's solution which is given below, where the 34 49 22 11 36 39 24 1 21 10 35 50 23 12 37 40 48 33 62 57 38 25 2 13 9 20 51 54 63 60 41 26 32 47 58 61 56 53 14 3 19 8 55 52 59 64 27 42 46 31 6 17 44 29 4 15 7 18 45 30 5 16 43 28 De Moivre's Solution. 30 21 6 15 28 19 7 16 29 20 5 14 22 31 8 35 18 27 9 36 17 26 13 4 32 23 2 11 34 25 1 10 33 24 3 12 Euler's Thirty-six Cell Solution. numbers indicate the order in which the cells are occupied successively. I place by its side a somewhat similar re-entrant solution, due to Euler, for a board of 36 cells. If a chess-board is used it is convenient to place a counter on each cell as the knight leaves it. * I do not know where they were published originally; they were quoted by Ozanam and Montucla, see Ozanam, 1803 edition, vol. i, p. 178; 1840 edition, p. 80. 160 UNICURSAL PROBLEMS. [CH. VI The next serious attempt to deal with the subject was made by Euler* in 1759: it was due to a suggestion made by L. Bertrand of Geneva, who subsequently (in 1778) issued an account of it. This method is applicable to boards of any shape and size, but in general the solutions to which it leads are not symmetrical and their mutual connexion is not apparent. Euler commenced by moving the knight at random over the board until it has no move open to it. With care this will leave only a few cells not traversed: denote them by a, b, ... His method consists in establishing certain rules by which these vacant cells can be interpolated into various parts of the circuit, and also by which the circuit can be made re-entrant. The following example, mentioned by Legendre as one of exceptional difficulty, illustrates the method. Suppose that we have formed 55 58 29 40 27 44 19 22 60 39 56 43 30 21 26 45 57 54 59 28 41 18 23 20 38 51 42 31 8 25 46 17 53 32 37 a 47 16 9 24 50 3 52

33 36 7 12 15 1 34 5 48 b 14 c 10 4 49 2 35 6 11 d 13 Figure i. 22 25 50 39 52 35 60 57 27 40 23 36 49 58 53 34 24 21 26 51 38 61 56 59 41 28 37 48 3 54 33 62 20 47 42 13 32 63 4 55 29 16 19 46 43 2 7 10 18 45 14 31 12 9 64 5 15 30 17 44 1 6 11 8 Figure ii. Example of Euler's Method. the route given in figure i; namely, 1, 2, 3, . . . , 59, 60; and that there are four cells left untraversed, namely, a, b, c, d. We begin by making the path 1 to 60 re-entrant. The cell 1 commands a cell p, where p is 32, 52, or 2. The cell 60 commands a cell q, where q is 29, 59, or 51. Then, if any of these values of p and q differ by unity, we can make the route re-entrant. This is the case here if p = 52, q = 51. Thus the cells 1, 2, 3, . . . , 51; 60, 59, . . . , 52 form a * Mémoires de Berlin for 1759, Berlin, 1766, pp. 310–337; or Commentationes Arithmeticae Collectae, St Petersburg, 1849, vol. i, pp. 337–355. CH. VI] KNIGHT'S PATH ON A CHESS-BOARD. 161 re-entrant route of 60 moves. Hence, if we replace the numbers 60, 59, . . . , 52 by 52, 53, . . . , 60, the steps will be numbered consecutively. I recommend the reader who wishes to follow the subsequent details of Euler's argument to construct this square on a piece of paper before proceeding further. Next, we add the cells a, b, d to this route. In the new diagram of 60 cells formed as above the cell a commands the cells there numbered 51, 53, 41, 25, 7, 5, and 3. It is indifferent which of these we select: suppose we take 51. Then we must make 51 the last cell of the route of 60 cells, so that we can continue with a, b, d. Hence, if the reader will add 9 to every number on the diagram he has constructed, and then replace 61, 62, . . . , 69 by 1, 2, . . . , 9, he will have a route which starts from the cell occupied originally by 60, the 60th move is on to the cell occupied originally by 51, and the 61st, 62nd, 63rd moves will be on the cells a, b, d respectively. It remains to introduce the cell c. Since c commands the cell now numbered 25, and 63 commands the cell now numbered 24, this can be effected in the same way as the first route was made re-entrant. In fact the cells numbered 1, 2, . . . , 24; 63, 62, . . . , 25, c form a knight's path. Hence we must replace 63, 62, . . . , 25 by the numbers 25, 26, . . . , 63, and then we can fill up c with 64. We have now a route which covers the whole board. Lastly, it remains to make this route re-entrant. First, we must get the cells 1 and 64 near one another. This can be effected thus. Take one of the cells commanded by 1, such as 28, then 28 commands 1 and 27. Hence the cells 64, 63, . . . , 28; 1, 2, . . . , 27 form a route; and this will be represented in the diagram if we replace the cells numbered 1, 2, . . . , 27 by 27, 26, . . . , 1. The cell now occupied by 1 commands the cells 26, 38, 54, 12, 14, 16, 28; and the cell occupied by 64 commands the cells 13, 43, 63, 55. The cells 13 and 14 are consecutive, and therefore the cells 64, 63, . . . , 14; 1, 2, . . . , 13 form a route. Hence we must replace the numbers 1, 2, . . . , 13 by 13, 12, . . . , 1, and we obtain a re-entrant route covering the whole board, which is represented in the second of the diagrams given on the facing page. Euler showed how seven other re-entrant routes can be deduced from any given re-entrant route. It is not difficult to

apply the method so as to form a route which begins on one given cell and ends on any other given cell. 162 UNICURSAL PROBLEMS. [CH. VI Euler next investigated how his method could be modified so as to allow of the imposition of additional restrictions. An interesting example of this kind is where the first 32 moves are confined to one half of the board. One solution of this is delineated below. The order of the first 32 moves can be determined by Euler's 58 43 60 37 52 41 62 35 49 46 57 42 61 36 53 40 44 59 48 51 38 55 34 63 47 50 45 56 33 64 39 54 22 7 32 1 24 13 18 15 31 2 23 6 19 16 27 12 8 21 4 29 10 25 14 17 3 30 9 20 5 28 11 26 Euler's Half-board Solution. 50 45 62 41 60 39 54 35 63 42 51 48 53 36 57 38 46 49 44 61 40 59 34 55 43 64 47 52 33 56 37 58 26 5 24 1 20 15 32 11 23 2 27 8 29 12 17 14 6 25 4 21 16 19 10 31 3 22 7 28 9 30 13 18 Roget's Half-board Solution. method. It is obvious that, if to the number of each such move we add 32, we shall have a corresponding set of moves from 33 to 64 which would cover the other half of the board; but in general the cell numbered 33 will not be a knight's move from that numbered 32, nor will 64 be a knight's move from 1. Euler however proceeded to show how the first 32 moves might be determined so that, if the half of the board containing the corresponding moves from 33 to 64 was twisted through two right angles, the two routes would become united and re-entrant. If x and y are the numbers of a cell reckoned from two consecutive sides of the board, we may call the cell whose distances are respectively x and y from the opposite sides a complementary cell. Thus the cells (x, y) and (9 − x, 9 − y) are complementary, where x and y denote respectively the column and row occupied by the cell. Then in Euler's solution the numbers in complementary cells differ by 32: for instance, the cell (3, 7) is complementary to the cell (6, 2), the one is occupied by 57, the other by 25. Roget's method, which is described later, can be also applied to give half-board solutions. The result is indicated on this page. The close of Euler's memoir is devoted to showing how the method could be applied to crosses and other rectangular figures. I may note in particular his elegant re-entrant symmetrical solution for a square of 100 cells. CH. VI] KNIGHT'S PATH ON A CHESS-BOARD. 163 The next attempt of any special interest is due to Vandermonde* , who reduced the problem to arithmetic. His idea was to cover the board by two or more independent routes taken at random, and then to connect the routes. He defined the position of a cell by a fraction x/y, whose numerator x is the number of the cell from one side of the board, and whose denominator y is its number from the adjacent side of the board; this is equivalent to saying that x and y are the co-ordinates of a cell. In a series of fractions denoting a knight's path, the differences between the numerators of two consecutive fractions can be only one or two, while the corresponding difference between their denominators must be two or one respectively. Also x and y cannot be less than 1 or greater than 8. The notation is convenient, but Vandermonde applied it merely to obtain a particular solution of the problem for a board of 64 cells: the

method by which he effected this is analogous to that established by Euler, but it is applicable only to squares of an even order. The route that he arrives at is defined in his notation by the following fractions. 5 5 , 4 3 , 2 4 , 4 5 , 5 3 , 7 4 , 8 2 , 6 1 , 7 3 , 8 1 , 6 2 , 8 3 , 7 1 , 5 2 , 6 4 , 8 5 , 7 7 , 5 8 , 6 6 , 5 4 , 4 6 , 2 5 , 1 7 , 3 8 , 2 6 , 1 8 , 3 7 , 1 6 , 2 8 , 4 7 , 3 5 , 1 4 , 2 2 , 4 1 , 3 3 , 1 2 , 3 1 , 2 3 , 1 1 , 3 2 , 1 3 , 2 1 , 4 2 , 3 4 , 1 5 , 2 7 , 4 8 , 3 6 , 4 4 , 5 6 , 7 5 , 8 7 , 6 8 , 7 6 , 8 8 , 6 7 , 8 6 , 7 8 , 5 7 , 6 5 , 8 4 , 7 2 , 5 1 , 6 3 . The path is re-entrant but unsymmetrical. Had he transferred the first three fractions to the end of this series he would have obtained two symmetrical circuits of thirty-two moves joined unsymmetrically, and might have been enabled to advance further in the problem. Vandermonde also considered the case of a route in a cube. In 1773 Collini† proposed the exclusive use of symmetrical routes arranged without reference to the initial cell, but connected in such a manner as to permit of our starting from it. This is the foundation of the modern manner of attacking the problem. The method was reinvented in 1825 by Pratt‡ , and in 1840 by Roget, and has been subsequently employed by various writers. Neither Collini nor Pratt showed skill in using this method. The rule given by Roget is described later. One of the most ingenious of the solutions of the knight's path is * L'Histoire de l'Académie des Sciences for 1771, Paris, 1774, pp. 566-574. † Solution du Problème du Cavalier au Jeu des échecs, Mannheim, 1773. ‡ Studies of Chess, sixth edition, London, 1825. 164 UNICURSAL PROBLEMS. [CH. VI that given in 1823 by Warnsdorff* . His rule is that the knight must be moved always to one of the cells from which it will command the fewest squares not already traversed. The solution is not symmetrical and not re-entrant; moreover it is difficult to trace practically. The rule has not been proved to be true, but no exception to it is known: apparently it applies also to all rectangular boards which can be covered completely by a knight. It is somewhat curious that in most cases a single false step, except in the last three or four moves, will not affect the result. Warnsdorff added that when, by the rule, two or more cells are open to the knight, it may be moved to either or any of them indifferently. This is not so, and with great ingenuity two or three cases of failure have been constructed, but it would require exceptionally bad luck to happen accidentally on such a route. The above methods have been applied to boards of various shapes, especially to boards in the form of rectangles, crosses, and circles† . All the more recent investigations impose additional restrictions: such as to require that the route shall be re-entrant, or more generally that it shall begin and terminate on given cells. The best complete solution with which I am acquainted—and one which I believe is not generally known—is due to Roget‡ . It divides the whole route into four circuits, which can be combined so as to enable us to begin on any cell and terminate on any other cell of a different colour. Hence, if we like to select this last cell at a knight's move from the initial cell, we obtain a re-entrant route. On the other hand, the rule is applicable only to square boards

containing (4n) 2 cells: for example, it could not be used on the board of the French jeu des dames, which contains 100 cells. Roget began by dividing the board of 64 cells into four quarters. Each quarter contains 16 cells, and these 16 cells can be arranged in 4 groups, each group consisting of 4 cells which form a closed knight's path. All the cells in each such path are denoted by the same letter l, e, a, or p, as the case nay be. The path of 4 cells indicated by the * Des Rösselsprunges einfachste und allgemeinste Lösung, Schmalkalden, 1823: see Jaenisch, vol. ii, pp. 56–61, 273–289. † See ex. gr. T. Ciccolini's work Del Cavallo degli Scacchi, Paris, 1836. ‡ Philosophical Magazine, April, 1840, series 3, vol. xvi, pp. 305–309; see also the Quarterly Journal of Mathematics for 1877, vol. xiv, pp. 354–359. Some solutions, founded on Roget's method, are given in the Leisure Hour, Sept. 13, 1873, pp. 587–590; see also Ibid., Dec. 20, 1873, pp. 813–815. CH. VI] KNIGHT'S PATH ON A CHESS-BOARD. 165 consonants l and the path indicated by the consonants p are diamondshaped: the paths indicated respectively by the vowels e and a are square-shaped, as may be seen by looking at one of the four quarters in figure i below. l e a p l e a p a p l e a p l e e l p a e l p a p a e l p a e l l e a p l e a p a p l e a p l e e l p a e l p a p a e l p a e l Roget's Solution (i). 34 51 32 15 38 53 18 3 31 14 35 52 17 2 39 54 50 33 16 29 56 37 4 19 13 30 49 36 1 20 55 40 48 63 28 9 44 57 22 5 27 12 45 64 21 8 41 58 62 47 10 25 60 43 6 23 11 26 61 46 7 24 59 42 Roget's Solution (ii). Now all the 16 cells on a complete chess-board which are marked with the same letter can be combined into one circuit, and wherever the circuit begins we can make it end on any other cell in the circuit, provided it is of a different colour to the initial cell. If it is indifferent on what cell the circuit terminates we may make the circuit re-entrant, and in this case we can make the direction of motion round each group (of 4 cells) the same. For example, all the cells marked p can be arranged in the circuit indicated by the successive numbers 1 to 16 in figure ii above. Similarly all the cells marked a can be combined into the circuit indicated by the numbers 17 to 23; all the l cells into the circuit 33 to 48; and all the e cells into the circuit 49 to 64. Each of the circuits indicated above is symmetrical and re-entrant. The consonant and the vowel circuits are said to be of opposite kinds. The general problem will be solved if we can combine the four circuits into a route which will start from any given cell, and terminate on the 64th move on any other given cell of a different colour. To effect this Roget gave the two following rules. First. If the initial cell and the final cell are denoted the one by a consonant and the other by a vowel, take alternately circuits indicated by consonants and vowels, beginning with the circuit of 16 cells indicated by the letter of the initial cell and concluding with the circuit indicated by the letter of the final cell. 166 UNICURSAL PROBLEMS. [CH. VI Second. If the initial cell and the final cell are denoted both by consonants or both by vowels, first select a cell, Y , in the same circuit as the final cell, Z, and one move from it, next select a cell, X, belonging to one of the opposite circuits and one move from Y . This is

always possible. Then, leaving out the cells Z and Y , it always will be possible, by the rule already given, to travel from the initial cell to the cell X in 62 moves, and thence to move to the final cell on the 64th move. In both cases however it must be noticed that the cells in each of the first three circuits will have to be taken in such an order that the circuit does not terminate on a corner, and it may be desirable also that it should not terminate on any of the border cells. This will necessitate some caution. As far as is consistent with these restrictions it is convenient to make these circuits re-entrant, and to take them and every group in them in the same direction of rotation. As an example, suppose that we are to begin on the cell numbered 1 in figure ii on the previous page, which is one of those in a p circuit, and to terminate on the cell numbered 64, which is one of those in an e circuit. This falls under the first rule: hence first we take the 16 cells marked p, next the 16 cells marked a, then the 16 cells marked l, and lastly the 16 cells marked e. One way of effecting this is shown in the diagram. Since the cell 64 is a knight's move from the initial cell the route is re-entrant. Also each of the four circuits in the diagram is symmetrical, re-entrant, and taken in the same direction, and the only point where there is any apparent breach in the uniformity of the movement is in the passage from the cell numbered 32 to that numbered 33. A rule for re-entrant routes, similar to that of Roget, has been given by various subsequent writers, especially by De Polignac* and by Laquière† , who have stated it at much greater length. Neither of these authors seems to have been aware of Roget's theorems. De Polignac, like Roget, illustrates the rule by assigning letters to the various squares in the way explained above, and asserts that a similar rule is applicable to all even squares. Roget's method can be also applied to two half-boards, as indicated * Comptes Rendus, April, 1861; and Bulletin de la Société Mathématique de France, 1881, vol. ix, pp. 17–24. † Bulletin de la Société Mathématique de France, 1880, vol. viii, pp. 82–102, 132– 158. CH. VI] KNIGHT'S PATH ON A CHESS-BOARD. 167 in the figure given above on page 162. Another way of dividing the board into closed circuits which can be connected was given in 1843 by Moon* . He divided the board into a a b c d a b c d c d a b c d a b b a A B C D d c d c C D A B b a a b B A D C c d c d D C B A a b b a d c b a d c d c b a d c b a Moon's Solution. 63 22 15 40 1 42 59 18 14 39 64 21 60 17 2 43 37 62 23 16 41 4 19 58 24 13 38 61 20 57 44 3 11 36 25 52 29 46 5 56 26 51 12 33 8 55 30 45 35 10 49 28 53 32 47 6 50 27 34 9 48 7 54 31 Jaenisch's Solution. central square containing 4 2 cells and a surrounding annulus (see figure on this page). The annulus may be divided into four closed circuits, each containing 12 cells: these are marked respectively with the letters a, b, c, d. The central square may be divided similarly into four closed circuits, each containing 4 cells, denoted by the letters A, B, C, D. We can connect these routes as follows. If we are moving outwards from the central square to the annulus we can go from a cell A either to b or to c or to d (but not to a) and similarly for the other letters. If we

are moving inwards from the annulus to the central square we must go from a to D, or d to A, or b to C, or c to B, as the case may be. Thus if the initial cell is on a, we might take either of the cycles a D b C d A c B, or a D c B d A b C. By following these rules we always can connect the routes into one path, but in general it will not be re-entrant. It is convenient to take the cells in each circuit in one and the same direction, but a circuit in the outer annulus must not end in a corner cell, and to avoid this we may have to alter the direction in which a circuit is taken. Moon's rule can be modified to cover the case of any doubly even square board, and the path can be made to begin and end on any two given squares, but I do not propose to go further into details. * Cambridge Mathematical Journal, 1843, vol. iii, pp. 233–236. 168 UNICURSAL PROBLEMS. [CH. VI The method which Jaenisch gives as the most fundamental is not very different from that of Roget. It leads to eight forms, similar to that in the diagram printed on the previous page, in which the sum of the numbers in every column and every row is 260; but although symmetrical it is not in my opinion so easy to reproduce as that given by Roget. It is as yet impossible to say how many solutions of the problem exist. Legendre* mentioned the question, but Minding† was the earliest writer to attempt to answer it. More recent investigations have shown that on the one hand the number of possible routes is less‡ than the number of combinations of 168 things taken 63 at a time, and on the other hand is greater than 31, 054144—since this latter number is the number of re-entrant paths of a particular type§ . There are many similar problems in which it is required to determine routes by which a piece moving according to certain laws (ex. gr. a chess-piece such as a king, knight, &c.) can travel from a given cell over a board so as to occupy successively all the cells, or certain specified cells, once and only once, and terminate its route in a given cell. Euler's method can be applied to find routes of this kind: for instance, he applied it to find a re-entrant route by which a piece that moved two cells forward like a castle and then one cell like a bishop would occupy in succession all the black cells on the board. As another instance, a castle, placed on a chess-board of n 2 cells, can always be moved in such a manner that it shall move successively on to every cell once and only once; moreover, starting on any cell, its path can be made to terminate, if n be even, on any other cell of a different colour, and, if n be odd, on any other cell of the same colour‖ . But it will suffice to have discussed the classical problem of the determination of a knight's path on an ordinary chess-board, and I need not enter on the discussion of other similar problems. * Théorie des Nombres, Paris, 2nd edition, 1830, vol. ii, p. 165. † Cambridge and Dublin Mathematical Journal, 1852, vol. vii, pp. 147–156; and Crelle's Journal, 1853, vol. xliv, pp. 73–82. ‡ Jaenisch, vol. ii, p. 268. § Bulletin de la Société Mathématique de France, 1881, vol. ix, pp. 1–17. ‖ L'Intermédiaire des mathématiciens, Paris, July, 1901, p. 153. PART II. Miscellaneous Essays and Problems. "No man of science should think it a waste of time to learn something of the history of his

own subject; nor is the investigation of laborious methods now fallen into disuse, or of errors once commonly accepted the least valuable of mental disciplines." "The most worthless book of a bygone day is a record worthy of preservation. Like a telescopic star, its obscurity may render it unavailable for most purposes; but it serves, in hands which know how to use it, to determine the places of more important bodies." (De Morgan.) 169 CHAPTER VII. THE MATHEMATICAL TRIPOS. The Mathematical Tripos has played so prominent a part in the history of education at Cambridge and of mathematics in England, that a sketch of its development† may be interesting to general readers. So far as mathematics is concerned the history of the University before Newton may be summed up very briefly. The University was founded towards the end of the twelfth century. Throughout the middle ages the studies were organised on lines similar to those at Paris and Oxford. To qualify for a degree it was necessary to perform various exercises, and especially to keep a number of acts or to oppose acts kept by other students. An act consisted in effect of a debate in Latin, thrown, at any rate in later times, into syllogistic form. It was commenced by one student, the respondent, stating some proposition, often propounded in the form of a thesis, which was attacked by one or more opponents, the discussion being controlled by a graduate. The teaching was largely in the hands of young graduates—every master of arts being compelled to reside and teach for at least one year—though no doubt Colleges and private hostels supplemented this instruction in the case of their own students. † The following pages are mostly summarised from my History of the Study of Mathematics at Cambridge, Cambridge 1889. The subject is also treated in Whewell's Liberal Education, Cambridge, three parts, 1845, 1850, 1853; Wordsworth's Scholae Academicae, Cambridge, 1877; my own Origin and History of the Mathematical Tripos, Cambridge, 1880; and Dr Glaisher's Presidential Address to the London Mathematical Society, Transactions, vol xviii, 1886, pp. 4–38. 170 CH. VII] THE MATHEMATICAL TRIPOS. 171 The Reformation in England was mainly the work of Cambridge divines, and in the University the Renaissance was warmly welcomed. In spite of the disorder and confusion of the Tudor period, new studies and a system of professional instruction were introduced. Probably the science (as distinct from the art) of mathematics, save so far as involved in the quadrivium, was still an exotic study, but it was not wholly neglected. Tonstall, subsequently the most eminent English arithmetician of his time, migrated, perhaps about 1495, from Balliol College, Oxford, to King's Hall, Cambridge, and in 1530 the University appointed a mathematical lecturer in the person of Paynell of Pembroke Hall. Most of the subsequent English mathematicians of the Tudor period seem to have been educated at Cambridge; of these I may mention Record, who migrated, probably about 1535, from Oxford, Dee, Digges, Blundeville, Buckley, Billingsley, Hill, Bedwell, Hood, Richard and John Harvey, Edward Wright, Briggs, and Oughtred. The Elizabethan

statutes restricted liberty of thought and action in many ways, but, in spite of the civil and religious disturbances of the early half of the 17th century the mathematical school continued to grow. Horrox, Seth Ward, Foster, Rooke, Gilbert Clerke, Pell, Wallis, Barrow, Dacres, and Morland may be cited as prominent Cambridge mathematicians of the time. Newton's mathematical career dates from 1665; his reputation, abilities, and influence attracted general attention to the subject. He created a school of mathematics and mathematical physics, among the earliest members of which I note the names of Laughton, Samuel Clarke, Craig, Flamsteed, Whiston, Saunderson, Jurin, Taylor, Cotes, and Robert Smith. Since then Cambridge has been regarded, as in a special sense, the home of English mathematicians, and from 1706 onwards we have fairly complete accounts of the course of reading and work of mathematical students there. Until less than a century ago the form of the method of qualifying for a degree remained substantially unaltered, but the subject-matter of the discussions varied from time to time with the prevalent studies of the place. After the Renaissance some of the statutable exercises were "huddled," that is, were reduced to a mere form. To huddle an act, the proctor generally asked some question such as Quid est nomen to which the answer usually expected was Nescio. In these exercises considerable license was allowed, particularly if there were any play on the words 172 THE MATHEMATICAL TRIPOS. [CH. VII involved. For example, T. Brasse, of Trinity, was accosted with the question, Quid est aes? to which he answered, Nescio nisi finis examinationis. It should be added that retorts such as these were only allowed in the pretence exercises, and a candidate who in the actual examination was asked to give a definition of happiness and replied an exemption from Payne—that being the name of the moderator then presiding—was plucked for want of discrimination in time and place. In earlier years even the farce of huddling seems to have been unnecessary, for it was said in 1675 that it was not uncommon for the proctors to take "cautions for the performance of the statutable exercises, and accept the forfeit of the money so deposited in lieu of their performance." In medieval times acts had been usually kept on some scholastic question or on a proposition taken from the Sentences. About the end of the fifteenth century religious questions, such as the interpretation of Biblical texts, began to be introduced, some fifty or sixty years later the favourite subjects were drawn either from dogmatic theology or from philosophy. In the seventeenth century the questions were usually philosophical, but in the eighteenth century, under the influence of the Newtonian school, a large proportion of them were mathematical. Further details about these exercises and specimens of acts kept in the 18th century are given in my History of Mathematics at Cambridge. Here I will only say that they provided an admirable training in the art of presenting an argument, and in dialectical skill in attack and defence. The mental strain in a contested act was severe. De Morgan, describing his act kept

in 1826, wrote* , I was badgered for two hours with arguments given and answered in Latin,—or what we call Latin—against Newton's first section, Lagrange's derived functions, and Locke on innate principles. And though I took off everything, and was pronounced by the moderator to have disputed magno honore, I never had such a strain of thought in my life. For the inferior opponents were made as sharp as their betters by their tutors, who kept lists of queer objections drawn from all quarters. Had the language of the discussions been changed to English, as was repeatedly urged from 1774 onwards, these exercises might have been retained with advantage, but the barbarous Latin and the syllogistic form in which they were carried on prejudiced their retention. About 1830 a custom grew up for the respondent and opponents to meet previously and arrange their arguments together. The discussions * Budget of Paradoxes, by A. De Morgan, London, 1872, p. 305. CH. VII] THE MATHEMATICAL TRIPOS. 173 then became an elaborate farce, and were a mere public performance of what had been already rehearsed. Accordingly the moderators of 1839 took the responsibility of abandoning them. This action was singularly high-handed, since a report of May 30, 1838, had recommended that they should be continued, and there was no reason why they should not have been reformed and retained as a useful feature in the scheme of study. On the result of the acts a list of those qualified to receive degrees was drawn up. This list was not arranged strictly in order of merit, because the proctors could insert names anywhere in it, but by the beginning of the 18th century this power had become restricted to the right reserved to the vice-chancellor, the senior regent, and each proctor to place in the list one candidate anywhere he liked—a right which continued to exist till 1828, though it was not exercised after 1797. Subject to the granting of these honorary degrees, this final list was arranged in order of merit into wranglers and senior optimes, junior optimes, and poll-men. The bachelors on receiving their degrees took seniority according to their order on this list. The title wrangler is derived from these contentious discussions; the title optime from the customary compliment given by the moderator to a successful disputant, Domine. . . , optime disputasti, or even optime quidem disputasti, and the title of poll-man from the description of this class as oÉ πολλοÐ. The final exercises for the B.A. degree were never huddled, and until 1839 were carried out strictly. University officials were responsible for approving the subject-matter of these acts. Stupid men offered some irrefutable truism, but the ambitious student courted reputation by affirming some paradox. Probably all honour men kept acts, but poll-men were deemed to comply with the regulations by keeping opponencies. The proctors were responsible for presiding at these acts, or seeing that competent graduates did so. In and after 1649 two examiners were specially appointed for this purpose. In 1680* these examiners were appointed by the Senate with the title of moderator, and with the joint stipend of four shillings for everyone graduating as B.A. during

their year of office. In 1688 the joint stipend of the moderators was fixed at £40 a year. The moderators, like the proctors, were nominated by the Colleges in rotation. From the earliest times the proctors had the power of questioning * See Grace of October 25, 1680. 174 THE MATHEMATICAL TRIPOS. [CH. VII a candidate at the end of a disputation, and probably all candidates for a degree attended the public schools on certain days to give an opportunity to the proctors, or any master that liked, to examine them* , though the opportunity was not always used. Different candidates attended on different days. Probably such examinations were conducted in Latin. But soon after 1710† the moderators or proctors began the custom of summoning on one day in January all candidates whom they proposed to question. The examination was held in public, and from it the Senate-House Examination arose. The examination at this time did not last more than one day, and was, there can be no doubt, partly on philosophy and partly on mathematics. It is believed that it was always conducted in English, and it is likely that its rapid development was largely due to this. This introduction of a regular oral examination seems to have been largely due to the fact that when, in 1710, George I gave the Ely library to the University, it was decided to assign for its reception the old Senate-House—now the Catalogue Room in the Library—and to build a new room for the meetings of the Senate. Pending the building of the new Senate-House the books were stored in the Schools. As the Schools were thus rendered unavailable for keeping acts, considerable difficulty was found in arranging for all the candidates to keep the full number of statutable exercises, and thus obtaining opportunities to compare them one with another: hence the introduction of a supplementary oral examination. The advantages of this examination as providing a ready means of testing the knowledge and abilities of the candidates were so patent that it was retained when the necessity for some system of the kind had passed away, and finally it became systematized into an organized test to which all questionists were subjected. In 1731 the University raised the joint stipend of the moderators to £60 “in consideration of their additional trouble in the Lent Term.” This would seem to indicate that the Senate-House Examination had then taken formal shape, and perhaps that a definite scheme for its conduct had become customary. * Ex. gr. see De la Pryme’s account of his graduation in 1694, Surtees Society, vol. liv, 1870, p. 32. † W. Reneu, in his letters of 1708–1710 describing the course for the B.A. degree, makes no mention of the Senate-House examination, and I think it is a reasonable inference that it had not then been established. CH. VII] THE MATHEMATICAL TRIPOS. 175 As long as the order of the list of those approved for degrees was settled on the result of impressions derived from acts kept by the different candidates at different times and on different subjects, it was impossible to arrange the men in strict order of merit, nor was much importance attached to the order. But, with the introduction of an examination of all the candidates on one day,

much closer attention was paid to securing a strict order of merit, and more confidence was felt in the published order. It seems to have been consequent on this that in and after 1747 the final lists were freely circulated, and it was further arranged that the names of the honorary optimes should be indicated. In the lists given in the Calendars issued subsequent to 1799 these names are struck out. It is only in exceptional cases that we are acquainted with the true order for the earlier tripos lists, but in a few cases the relative positions of the candidates are known; for example, in 1680 Bentley came out as third though he was put down as sixth in the list of wranglers. Of the detailed history of the examination until the middle of the eighteenth century we know nothing. From 1750 onwards, however, we have more definite accounts of it. At this time, it would seem that all the men from each College were taken together as a class, and questions passed down by the proctors or moderators till they were answered: but the examination remained entirely oral, and technically was regarded as subsidiary to the discussions which had been previously held in the schools. As each class contained men of very different abilities a custom grew up by which every candidate was liable to be taken aside to be questioned by any M.A. who wished to do so, and this was regarded as an important part of the examination. The subjects were mathematics and philosophy. The examination now continued for two days and a half. At the conclusion of the second day the moderators received the reports of those masters of arts who had voluntarily taken part in the examination, and provisionally settled the final list; while the last halfday was used in revising and re-arranging the order of merit. Richard Cumberland has left an account of the tests to which he was subjected when he took his B.A. degree in 1751. Clearly the disputations still played an important part, and it is difficult to say what weight was attached to the subsequent Senate-House examination; his reference to it is only of a general character. After saying that he kept 176 THE MATHEMATICAL TRIPOS. [CH. VII two acts and two opponencies he continues* : The last time I was called upon to keep an act in the schools I sent in three questions to the Moderator, which he withstood as being all mathematical, and required me to conform to the usage of proposing one metaphysical question in the place of that, which I should think fit to withdraw. This was ground I never liked to take, and I appealed against his requisition: the act was accordingly put by till the matter of right should be ascertained by the statutes of the university, and in the result of that enquiry it was given for me, and my question stood. . . . I yielded now to advice, and paid attention to my health, till we were cited to the senate house to be examined for our Bachelor's degree. It was hardly ever my lot during that examination to enjoy any respite. I seemed an object singled out as every man's mark, and was kept perpetually at the table under the process of question and answer. It was found possible by means of the new examination to differentiate the better men more accurately than before; and accordingly, in

1753, the first class was subdivided into two, called respectively wranglers and senior optimes, a division which is still maintained. The semi-official examination by M.A.s was regarded as the more important part of the test, and the most eminent residents in the University took part in it. Thus John Fenn, of Caius, 5th wrangler in 1761, writes† : On the following Monday, Tuesday, and Wednesday, we sat in the Senate-house for public examination; during this time I was officially examined by the Proctors and Moderators, and had the honor of being taken out for examination by Mr Abbot, the celebrated mathematical tutor of St John's College, by the eminent professor of mathematics Mr Waring, of Magdalene, and by Mr Jebb of Peterhouse, a man thoroughly versed in the academical studies. This irregular examination by any master who chose to take part in it constantly gave rise to accusations of partiality. In 1763 the traditional rules for the conduct of the examination took more definite shape. Henceforth the examiners used the disputations only as a means of classifying the men roughly. On the result of their "acts," and probably partly also of their general reputation, the candidates were divided into eight classes, each arranged in alphabetical order. The subsequent position of the men in the class was determined solely by the Senate-House examination. The first two classes * Memoirs of Richard Cumberland, London, 1806, pp. 78, 79. † Quoted by C. Wordsworth, Scholae Academicae, Cambridge, 1877, pp. 30–31. CH. VII] THE MATHEMATICAL TRIPOS. 177 comprised all who were expected to be wranglers, the next four classes included the other candidates for honours, and the last two classes consisted of poll-men only. Practically anyone placed in either of the first two classes was allowed, if he wished, to take an aegrotat senior optime, and thus escape all further examination: this was called gulphing it. All the men from one College were no longer taken together, but each class was examined separately and vivâ voce; and hence, since all the students comprised in each class were of about equal attainments, it was possible to make the examination more effective. Richard Watson, of Trinity, claimed that this change was made by him when acting as moderator in 1763. He says* : There was more room for partiality. . . then [i.e. in 1759] than there is now; and I attribute the change, in a great degree, to an alteration which I introduced the first year I was moderator [i.e. in 1763], and which has been persevered in ever since. At the time of taking their Bachelor of Arts' degree, the young men are examined in classes, and the classes are now formed according to the abilities shown by individuals in the schools. By this arrangement, persons of nearly equal merits are examined in the presence of each other, and flagrant acts of partiality cannot take place. Before I made this alteration, they were examined in classes, but the classes consisted of members of the same College, and the best and worst were often examined together. It is probable that before the examination in the Senate-House began a candidate, if manifestly placed in too low a class, was allowed the privilege of challenging the class to

which he was assigned. Perhaps this began as a matter of favour, and was only granted in exceptional cases, but a few years later it became a right which every candidate could exercise; and I think that it is partly to its development that the ultimate predominance of the tripos over the other exercises for the degree is due. In the same year, 1763, it was decided that the relative position of the senior and second wranglers, namely, Paley, of Christ's, and Frere, of Caius, was to be decided by the Senate-House examination and not by the disputations. Henceforward distinction in the SenateHouse examination was regarded as the most important honour open to undergraduates. In 1768 Dr Smith, of Trinity College, founded prizes for mathematics and natural philosophy open to two commencing bachelors. The * Anecdotes of the Life of Richard Watson by Himself, London, 1817, pp. 18, 19. 178 THE MATHEMATICAL TRIPOS. [CH. VII examination followed immediately after the Senate-House examination, and the distinction, being much coveted, tended to emphasize the mathematical side of the normal University education of the best men. Since 1883 the prizes have been awarded on the result of dissertations* . Until now the Senate-House examination had been oral, but about this time, circ. 1770, it began to be the custom to dictate some or all of the questions and to require answers to be written. Only one question was dictated at a time, and a fresh one was not given out until some student had solved that previously read: a custom which by causing perpetual interruptions to take down new questions must have proved very harassing. We are perhaps apt to think that an examination conducted by written papers is so natural that the custom is of long continuance, but I know no record of any in Europe earlier than the eighteenth century. Until 1830 the questions for the Smith's Prize were dictated. The following description of the Senate-House examination as it existed in 1772 is given by Jebb† . The moderators, some days before the arrival of the time prescribed by the vice-chancellor, meet for the purpose of forming the students into divisions of six, eight, or ten, according to their performance in the schools, with a view to the ensuing examination. Upon the first of the appointed days, at eight o'clock in the morning, the students enter the senate-house, preceded by a master of arts from each college, who. . . is called the "father" of the college. . . After the proctors have called over the names, each of the moderators sends for a division of the students: they sit with him round a table, with pens, ink, and paper, before them: he enters upon his task of examination, and does not dismiss the set till the hour is expired. This examination has now for some years been held in the english language. The examination is varied according to the abilities of the students. The moderator generally begins with proposing some questions from the six books of Euclid, plain trigonometry, and the first rules of algebra. If any person fails in an answer, the question goes to the next. From the elements of mathematics, a transition is made to the four branches of philosophy, viz. mechanics, hydrostatics, apparent astronomy, and optics,

as explained in the works of Maclaurin, Cotes, Helsham, Hamilton, Rutherforth, Keill, Long, Ferguson, and Smith. If the moderator finds the set of questionists, under examination, capable of answering * See Grace of October 25, 1885; and the Cambridge University Reporter, October 23 and 30, 1883. † The Works of J. Jebb, London, 1787, vol. ii, pp. 290–297. CH. VII] THE MATHEMATICAL TRIPOS. 179 him, he proceeds to the eleventh and twelfth books of Euclid, conic sections, spherical trigonometry, the higher parts of algebra, and sir Isaac Newton's Principia; more particularly those sections, which treat of the motion of bodies in eccentric and revolving orbits; the mutual action of spheres, composed of particles attracting each other according to various laws; the theory of pulses, propagated through elastic mediums; and the stupendous fabric of the world. Having closed the philosophical examination, he sometimes asks a few questions in Locke's Essay on the human understanding, Butler's Analogy, or Clarke's Attributes. But as the highest academical distinctions are invariably given to the best proficients in mathematics and natural philosophy, a very superficial knowledge in morality and metaphysics will suffice. When the division under examination is one of the highest classes, problems are also proposed, with which the student retires to a distant part of the senate-house; and returns, with his solution upon paper, to the moderator, who, at his leisure, compares it with the solutions of other students, to whom the same problems have been proposed. The extraction of roots, the arithmetic of surds, the invention of divisers, the resolution of quadratic, cubic, and biquadratic equations; together with the doctrine of fluxions, and its application to the solution of questions "de maximis et minimis," to the finding of areas, to the rectification of curves, the investigation of the centers of gravity and oscillation, and to the circumstances of bodies, agitated, according to various laws, by centripetal forces, as unfolded, and exemplified, in the fluxional treatises of Lyons, Saunderson, Simpson, Emerson, Maclaurin, and Newton, generally form the subject matter of these problems. When the clock strikes nine, the questionists are dismissed to breakfast: they return at half past nine, and stay till eleven; they go in again at half past one, and stay till three; and, lastly, they return at half-past three, and stay till five. The hours of attendance are the same upon the subsequent day. On the third day they are finally dismissed at eleven. During the hours of attendance, every division is twice examined in form, once by each of the moderators, who are engaged for the whole time in this employment. As the questionists are examined in divisions of only six or eight at a time, but a small portion of the whole number is engaged, at any particular hour, with the moderators; and, therefore, if there were no further examination, much time would remain unemployed. But the moderator's inquiry into the merits of the candidates forms the least material part of the examination. The "fathers" of the respective colleges, zealous for the credit of the societies, of which they are the guardians, are incessantly employed in examining those students,

who appear most likely to contest the palm of glory with their sons. This part of the process is as follows: 180 THE MATHEMATICAL TRIPOS. [CH. VII The father of a college takes a student of a different college aside, and, sometimes for an hour and an half together, strictly examines him in every part of mathematics and philosophy, which he professes to have read. After he hath, from this examination, formed an accurate idea of the student's abilities and acquired knowledge, he makes a report of his absolute or comparative merit to the moderators, and to every other father who shall ask him the question. Besides the fathers, all masters of arts, and doctors, of whatever faculty they be, have the liberty of examining whom they please; and they also report the event of each trial, to every person who shall make the inquiry. The moderators and fathers meet at breakfast, and at dinner. From the variety of reports, taken in connection with their own examination, the former are enabled, about the close of the second day, so far to settle the comparative merits of the candidates, as to agree upon the names of fourand-twenty, who to them appear most deserving of being distinguished by marks of academical approbation. These four-and-twenty [wranglers and senior optimes] are recommended to the proctors for their private examination; and, if approved by them, and no reason appears against such placing of them from any subsequent inquiry, their names are set down in two divisions, according to that order, in which they deserve to stand; are afterwards printed; and read over upon a solemn day, in the presence of the vice-chancellor, and of the assembled university. The names of the twelve [junior optimes], who, in the course of the examination, appear next in desert, are also printed, and are read over, in the presence of the vice-chancellor, and of the assembled university, upon a day subsequent to the former. . . The students, who appear to have merited neither praise nor censure, [the poll-men], pass unnoticed: while those, who have taken no pains to prepare themselves for the examination, and have appeared with discredit in the schools, are distinguished by particular tokens of disgrace. Jebb's statement about the number of wranglers and senior optimes is only approximate. It may be added that it was now frankly recognized that the examination was competitive* . Also that though it was open to any member of the Senate to take part in it, yet the determination of the relative merit of the students was entirely in the hands of the moderators† . Although the examination did not occupy more than three days it must have been a severe physical trial to anyone who was delicate. It was held in winter and in the Senate-House. That building was then noted * "Emulation, which is the principle upon which the plan is constructed." The Works of J. Jebb, London, 1787, vol. iii, p. 261. † The Works of J. Jebb, London, 1787, vol. iii, p. 272. CH. VII] THE MATHEMATICAL TRIPOS. 181 for its draughts, and was not warmed in any way: and according to tradition, on one occasion the candidates on entering in the morning found the ink in the pots on their desks frozen. The University was not altogether satisfied*

with the scheme in force, and in 1779† the scheme of examination was amended in various respects. In particular the examination was extended to four days, a third day being given up entirely to natural religion, moral philosophy, and Locke. It was further announced‡ that a candidate would not receive credit for advanced subjects unless he had satisfied the examiners in Euclid and elementary Natural Philosophy. A system of brackets or “classes quam minimae” was now introduced. Under this system the examiners issued on the morning of the fourth day a provisional list of men who had obtained honours, with the names of those of about equal merit bracketed, and that day was devoted to arranging the names in each bracket in order of merit: the examiners being given explicit authority to invite the assistance of others in this work. Whether at this time a candidate could request to be re-examined with the view of being moved from one bracket to another is uncertain, but later this also was allowed. Under the scheme of 1779 also the number of examiners was increased to four, the moderators of one year becoming, as a matter of course, the examiners of the next. Thus of the four examiners in each year, two had taken part in the examination of the previous year, and the continuity of the system of examination was maintained. The names of the moderators appear on the tripos lists, but the names of the examiners were not printed on the lists till some years later. The right of any M.A. to take part in the examination was not affected, though henceforth it was exercised more sparingly, and I believe was not insisted on after 1785. But it became a regular custom for the moderators to invite particular M.A.s to examine and compare specified candidates. Milner, of Queens’, was constantly asked to assist in this way. It was not long before it became an established custom that a candidate, who was dissatisfied with the class in which he had been placed as the result of his disputations, might challenge it before the * See Graces of July 5, 1773, and of February 17, 1774. † See Graces of March 19, 20, 1779. ‡ Notice issued by the Vice-Chancellor, dated May 19, 1779. 182 THE MATHEMATICAL TRIPOS. [CH. VII examination began. This power seems to have been used but rarely; it was, however, a recognition of the fact that a place in the tripos list was to be determined by the Senate-House examination alone, and the examiners soon acquired the habit of settling the preliminary classes without exclusive reference to the previous disputations. The earliest papers actually set in the Senate-House, and now extant, are two problem papers set in 1785 and 1786 by W. Hodson, of Trinity, then a proctor. The autograph copies from which he gave out the questions were luckily preserved, and are in the library* of Trinity College. They must be almost the last problem papers which were dictated, instead of being printed and given as a whole to the candidates. The problem paper in 1786 was as follows: 1. To determine the velocity with which a Body must be thrown, in a direction parallel to the Horizon, so as to become a secondary planet to the Earth; as also to describe a parabola, and never return. 2. To demonstrate, supposing the force to

vary as 1 D2 , how far a body must fall both within and without the Circle to acquire the Velocity with which a body revolves in a Circle. 3. Suppose a body to be turned (sic) upwards with the Velocity with which it revolves in an Ellipse, how high will it ascend? The same is asked supposing it to move in a parabola. 4. Suppose a force varying first as 1 D3 , secondly in a greater ratio than 1 D2 but less than 1 D3 , and thirdly in a less ratio than 1 D2 , in each of these Cases to determine whether at all, and where the body parting from the higher Apsid will come to the lower. 5. To determine in what situation of the moon's Apsid they go most forwards, and in what situation of her Nodes the Nodes go most backwards, and why? 6. In the cubic equation x 3 + qx + r = 0 which wants the second term; supposing x = a + b and 3ab = −q, to determine the value of x. 7. To find the fluxion of x r × (y n + z m) 1/q . 8. To find the fluent of ax˙ a + x . 9. To find the fluxion of the mth power of the Logarithm of x. 10. Of right-angled Triangles containing a given Area to find that whereof the sum of the two legs AB + BC shall be the least possible. [This and the two following questions are illustrated by diagrams. The angle at B is the right angle.] 11. To find the Surface of the Cone ABC. [The cone is a right one on a circular base.] 12. To rectify the arc DB of the semicircle DBV . * The Challis Manuscripts, iii, 61. CH. VII] THE MATHEMATICAL TRIPOS. 183 In cases of equality in the Senate-House examination the acts were still taken into account in settling the tripos order: and in 1786 when the second, third, and fourth wranglers came out equal in the examination a memorandum was published that the second place was given to that candidate who dialectis magis est versatus, and the third place to that one who in scholis sophistarum melius disputavit. There seem to have been considerable intervals in the examination by the moderators, and the examinations by the extraneous examiners took place in these intervals. Those candidates who at any time were not being examined occupied themselves with amusements, provided they were not too boisterous and obvious: probably dice and cards played a large part in them. Gunning in an amusing account of his examination in 1788 talks of games with a teetotum* in which he took part on the Wednesday (when Locke and Paley formed the subjects of examination), but "which was carried on with great spirit. . . by considerable numbers during the whole of the examination." About this time, 1790, the custom of printing the problem papers was introduced, but until 1828 the other papers continued to be dictated. Since 1827 all the papers have been printed. I insert here the following letter† from William Gooch, of Caius, in which he describes his examination in the Senate-House in 1791. It must be remembered that it is the letter of an undergraduate addressed to his father and mother, and was not intended either for preservation or publication: a fact which certainly does not detract from its value. Monday 1 4 aft. 12. We have been examin'd this Morning in pure Mathematics & I've hitherto kept just about even with Peacock which is much more than I expected. We are going at 1 o'clock to be examin'd

till 3 in Philosophy. From 1 till 7 I did more than Peacock; But who did most at Moderator's Rooms this Evening from 7 till 9, I don't know yet;—but I did above three times as much as the Senr Wrangler last year, yet I'm afraid not so much as Peacock. Between One & three o'Clock I wrote up 9 sheets of Scribbling Paper so you may suppose I was pretty fully employ'd. Tuesday Night. I've been shamefully us'd by Lax to-day;—Tho' his anxiety for Peacock must (of course) be very great, I never suspected that his Partially (sic) w d get the better of his Justice. I had entertain'd too high an opinion of * H. Gunning, Reminiscences, second edition, London, 1855, vol. i, p. 82. † C. Wordsworth, Scholae Academicae, Cambridge, 1877, pp. 322–23. 184 THE MATHEMATICAL TRIPOS. [CH. VII him to suppose it.—he gave Peacock a long private Examination & then came to me (I hop'd) on the same subject, but 'twas only to Bully me as much as he could,—whatever I said (tho' right) he tried to convert into Nonsense by seeming to misunderstand me. However I don't entirely dispair of being first, tho' you see Lax seems determin'd that I shall not.—I had no Idea (before I went into the Senate-House) of being able to contend at all with Peacock. Wednesday evening. Peacock & I are still in perfect Equilibrio & the Examiners themselves can give no guess yet who is likely to be first;—a New Examiner (Wood of St. John's, who is reckon'd the first Mathematician in the University, for Waring doesn't reside) was call'd solely to examine Peacock & me only.— but by this new Plan nothing is yet determin'd.—So Wood is to examine us again to-morrow morning. Thursday evening. Peacock is declar'd first & I second,—Smith of this Coll. is either 8th or 9th & Lucas is either 10th or 11th.—Poor Quiz Carver is one of the oÉ πολλοÐ;—I'm perfectly satisfied that the Senior Wranglership is Peacock's due, but certainly not so very indisputably as Lax pleases to represent it—I understand that he asserts 'twas 5 to 4 in Peacock's favor. Now Peacock & I have explain'd to each other how we went on, & can prove indisputably that it wasn't 20 to 19 in his favor;—I cannot therefore be displeas'd for being plac'd second, tho' I'm provov'd (sic) with Lax for his false report (so much beneath the Character of a Gentleman.)— N.B. it is my very particular Request that you don't mention Lax's behaviour to me to any one. Such was the form ultimately taken by the Senate-House examination, a form which it substantially retained without alteration for nearly half-a-century. It soon became the sole test by which candidates were judged. The University was not obliged to grant a degree to anyone who performed the statutable exercises, and it was open to the University to refuse to pass a supplicat for the B.A. degree unless the candidate had presented himself for the Senate-House examination. In 1790 James Blackburn, of Trinity, a questionist of exceptional abilities, was informed that in spite of his good disputations he would not be allowed a degree unless he also satisfied the examiners in the tripos. He accordingly solved one "very hard problem," though in consequence of a dispute with the authorities he refused to attempt any more.* It

will be recollected that the examination was now compulsory on all candidates pursuing the normal course for the B.A. degree. In 1791 * Gunning, Reminiscences, second edition, London, 1855, vol. i, p. 182. CH. VII] THE MATHEMATICAL TRIPOS. 185 the University laid down rules* for its conduct, so far as it concerned poll-men, decreeing that those who passed were to be classified in four divisions or classes, the names in each class to be arranged alphabetically, but not to be printed on the official tripos lists. The classes in the final lists must be distinguished from the eight preliminary classes issued before the commencement of the examination. The men in the first six preliminary classes were expected to take honours; those in the seventh and eighth preliminary classes were primâ facie poll-men. In 1799 the moderators announced† that for the future they would require every candidate to show a competent knowledge of the first book of Euclid, arithmetic, vulgar and decimal fractions, simple and quadratic equations, and Locke and Paley. Paley's works seem to be held in esteem by modern divines, and his Evidences, though not his Philosophy, still remains (1905) one of the subjects of the Previous Examination, but his contemporaries thought less highly of his writings, or at any rate of his Philosophy. Thus Best is quoted by Wordsworth‡ as saying of Paley's Philosophy, "The tutors of Cambridge no doubt neutralize by their judicious remarks, when they read it to their pupils, all that is pernicious in its principles": so also Richard Watson, Bishop of Llandaff, in his anecdotal autobiography§ , says, in describing the Senate-House examination in which Paley was senior wrangler, that Paley was afterwards known to the world by many excellent productions, "though there are some. . . principles in his philosophy which I by no means approve." In 1800 the moderators extended to all men in the first four preliminary classes the privilege of being allowed to attempt the problem papers: hitherto this privilege had been confined to candidates placed in the first two classes. Until 1828 the problem papers were set in the evenings, and in the rooms of the moderator. The University Calendars date from 1796, and from 1802 to 1882 inclusive contain the printed tripos papers of the previous January. The papers from 1801 to 1820 and from 1838 to 1849 inclusive were also published in separate volumes, which are to be found in most public libraries. No problems were ever set to the men in the seventh and * See Grace of April 8, 1791. † Communicated by the moderators to fathers of Colleges on January 18, 1799, and agreed to by the latter. ‡ C. Wordsworth, Scholae Academicae, Cambridge, 1877, p. 123. § Anecdotes of the Life of R. Watson, London, 1817, p. 19. 186 THE MATHEMATICAL TRIPOS. [CH. VII eighth preliminary classes, which contained the poll-men. None of the bookwork papers of this time are now extant, but it is believed that they contained but few riders. Many of the so-called problems were really pieces of bookwork or easy riders: it must however be remembered that the text-books then in circulation were inferior and incomplete as compared with modern ones. The Calendar of 1802 contains a diffuse

account of the examination. It commences as follows: On the Monday morning, a little before eight o'clock, the students, generally about a hundred, enter the Senate-House, preceded by a master of arts, who on this occasion is styled the father of the College to which he belongs. On two pillars at the entrance of the Senate-House are hung the classes and a paper denoting the hours of examination of those who are thought most competent to contend for honours. Immediately after the University clock has struck eight, the names are called over, and the absentees, being marked, are subject to certain fines. The classes to be examined are called out, and proceed to their appointed tables, where they find pens, ink, and paper provided in great abundance. In this manner, with the utmost order and regularity, two-thirds of the young men are set to work within less than five minutes after the clock has struck eight. There are three chief tables, at which six examiners preside. At the first, the senior moderator of the present year and the junior moderator of the preceding year. At the second, the junior moderator of the present and the senior moderator of the preceding year. At the third, two moderators of the year previous to the two last, or two examiners appointed by the Senate. The two first tables are chiefly allotted to the six first classes; the third, or largest, to the oÉ πολλοÐ. The young men hear the propositions or questions delivered by the examiners; they instantly apply themselves; demonstrate, prove, work out and write down, fairly and legibly (otherwise their labour is of little avail) the answers required. All is silence; nothing heard save the voice of the examiners; or the gentle request of some one, who may wish a repetition of the enunciation. It requires every person to use the utmost dispatch; for as soon as ever the examiners perceive anyone to have finished his paper and subscribed his name to it another question is immediately given. . . The examiners are not seated, but keep moving round the tables, both to judge how matters proceed and to deliver their questions at proper intervals. The examination, which embraces arithmetic, algebra, fluxions, the doctrine of infinitesimals and increments, geometry, trigonometry, mechanics, hydrostatics, optics, and astronomy, in all their various gradations, is varied according to circumstances: no one can anticipate a question, for in the course of five minutes he may be dragged from Euclid to Newton, from the humble arithmetic of Bonnycastle to the abstruse analytics of Waring. While this examination is proceeding at the three CH. VII] THE MATHEMATICAL TRIPOS. 187 tables between the hours of eight and nine, printed problems are delivered to each person of the first and second classes; these he takes with him to any window he pleases, where there are pens, ink, and paper prepared for his operations. The examination began at eight. At nine o'clock the papers had to be given up, and half-an-hour was allowed for breakfast. At half-past nine the candidates came back, and were examined in the way described above till eleven, when the Senate-House was again cleared. An interval of two hours then took place. At one o'clock all

returned to be again examined. At three the Senate-House was cleared for half-an-hour, and, on the return of the candidates, the examination was continued till five. At seven in the evening the first four classes went to the senior moderator's rooms to solve problems. They were finally dismissed for the day at nine, after eight hours of examination. The work of Tuesday was similar to that of Monday: Wednesday was partly devoted to logic and moral philosophy. At eight o'clock on Thursday morning a first list was published with all candidates of about equal merits bracketed. Until nine o'clock a candidate had the right to challenge anyone above him to an examination to see which was the better. At nine a second list came out, and a candidate's right of challenge was then confined to the bracket immediately above his own. If he proved himself the equal of the man so challenged his name was transferred to the upper bracket. To challenge and then to fail to substantiate the claim to removal to a higher bracket was considered rather ridiculous. Revised lists were published at 11 a.m., 3 p.m., and 5 p.m., according to the results of the examination during that day. At five the whole examination ended. The proctors, moderators, and examiners then retired to a room under the Public Library to prepare the list of honours, which was sometimes settled without much difficulty in a few hours, but sometimes not before 2 a.m. or 3 a.m. the next morning. The name of the senior wrangler was generally announced at midnight, and the rest of the list the next morning. In 1802 there were eighty-six candidates for honours, and they were divided into fifteen brackets, the first and second brackets containing each one name only, and the third bracket four names. It is clear from the above account that the competition fostered by the examination had developed so much as to threaten to impair its usefulness as guiding the studies of the men. On the other hand, there can be no doubt that the carefully devised arrangements for obtaining an accurate order of merit stimulated the best men to throw all their 188 THE MATHEMATICAL TRIPOS. [CH. VII energies into the work for the examination. It is easy to point out the usual double-edged result of a strict order of merit. The problem before the University was to retain its advantages while checking any abuses to which it might lead. It was the privilege of the moderators to entertain the proctors and some of the leading resident mathematicians the night before the issue of the final list, and to communicate that list in confidence to their guests. This pleasant custom survived till 1884. I revived the practice in 1890 when acting as senior moderator, but it seems to have now ceased. In 1806 Sir Frederick Pollock was senior wrangler, and in 1869 in answer to an appeal from De Morgan for an account of the mathematical study of men at the beginning of the century he wrote a letter* which is sufficiently interesting to bear reproduction: I shall write in answer to your inquiry, all about my books, my studies, and my degree, and leave you to settle all about the proprieties which my letter may give rise to, as to egotism, modesty, &c. The only books I read the first year were Wood's

Algebra (as far as quadratic equations), Bonnycastle's ditto, and Euclid (Simpson's). In the second year I read Wood (beyond quadratic equations), and Wood and Vince, for what they called the branches. In the third year I read the Jesuit's Newton and Vince's Fluxions; these were all the books, but there were certain mss. floating about which I copied—which belonged to Dealtry, second wrangler in Kempthorne's year. I have no doubt that I had read less and seen fewer books than any senior wrangler of about my time, or any period since; but what I knew I knew thoroughly, and it was completely at my fingers' ends. I consider that I was the last geometrical and fluxional senior wrangler; I was not up to the differential calculus, and never acquired it. I went up to college with a knowledge of Euclid and algebra to quadratic equations, nothing more; and I never read any second year's lore during my first year, nor any third year's lore during my second; my forte was, that what I did know I could produce at any moment with perfect accuracy. I could repeat the first book of Euclid word by word and letter by letter. During my first year I was not a 'reading' man (so called); I had no expectation of honours or a fellowship, and I attended all the lectures on all subjects—Harwood's anatomical, Woollaston's chemical, and Farish's mechanical lectures—but the examination at the end of the first year revealed to me my powers. I was not only in the first class, but it was generally understood I was first in the first class; neither I nor any one for me expected I should get in at all. Now, as I had taken no pains to prepare (taking, however, marvellous pains while the examination was going * Memoir of A. de Morgan, London, 1882, pp. 387–392. CH. VII] THE MATHEMATICAL TRIPOS. 189 on), I knew better than any one else the value of my examination qualities (great rapidity and perfect accuracy); and I said to myself, 'If you're not an ass, you'll be senior wrangler;' and I took to 'reading' accordingly. A curious circumstance occurred when the Brackets came out in the Senatehouse declaring the result of the examination: I saw at the top the name of Walter bracketed alone (as he was); in the bracket below were Fiott, Hustler , Jephson. I looked down and could not find my own name till I got to Bolland, when my pride took fire, and I said, 'I must have beaten that man, so I will look up again;' and on looking up carefully I found the nail had been passed through my name, and I was at the top bracketed alone, even above Walter. You may judge what my feelings were at this discovery; it is the only instance of two such brackets, and it made my fortune—that is, made me independent, and gave me an immense college reputation. It was said I was more than half of the examination before any one else. The two moderators were Hornbuckle, of St John's, and Brown (Saint Brown), of Trinity. The Johnian congratulated me. I said perhaps I might be challenged; he said, 'Well, if you are you're quite safe—you may sit down and do nothing, and no one would get up to you in a whole day.'. . . Latterly the Cambridge examinations seem to turn upon very different matters from what prevailed in my time. I think a Cambridge education has

for its object to make good members of society—not to extend science and make profound mathematicians. The tripos questions in the Senatehouse ought not to go beyond certain limits, and geometry ought to be cultivated and encouraged much more than it is. To this De Morgan replied: Your letter suggests much, because it gives possibility of answer. The branches of algebra of course mainly refer to the second part of Wood, now called the theory of equations. Waring was his guide. Turner—whom you must remember as head of Pembroke, senior wrangler of 1767— told a young man in the hearing of my informant to be sure and attend to quadratic equations. 'It was a quadratic,' said he, 'made me senior wrangler.' It seems to me that the Cambridge revivers were Waring, Paley, Vince, Milner. You had Dealtry's mss. He afterwards published a very good book on fluxions. He merged his mathematical fame in that of a Claphamite Christian. It is something to know that the tutor's ms. was in vogue in 1800–1806. Now—how did you get your conic sections? How much of Newton did you read? From Newton direct, or from tutor's manuscript? Surely Fiott was our old friend Dr Lee. I missed being a pupil of Hustler by a few weeks. He retired just before I went up in February 1823. The echo of Hornbuckle's answer to you about the challenge has lighted on Whewell, who, it is said, wanted to challenge Jacob, and was answered that he could not beat [him] if he were to write the whole day 190 THE MATHEMATICAL TRIPOS. [CH. VII and the other wrote nothing. I do not believe that Whewell would have listened to any such dissuasion. I doubt your being the last fluxional senior wrangler. So far as I know, Gipps, Langdale, Alderson, Dicey, Neale, may contest this point with you. The answer of Sir Frederick Pollock to these questions is dated August 7, 1869, and is as follows. You have put together as revivers five very different men. Woodhouse was better than Waring, who could not prove Wilson's (Judge of C.P.) guess about the property of prime numbers; but Woodhouse (I think) did prove it, and a beautiful proof it is. Vince was a bungler, and I think utterly insensible of mathematical beauty. Now for your questions. I did not get my conic sections from Vince. I copied a ms. of Dealtry. I fell in love with the cone and its sections, and everything about it. I have never forsaken my favourite pursuit; I delighted in such problems as two spheres touching each other and also the inside of a hollow cone, &c. As to Newton, I read a good deal (men now read nothing), but I read much of the notes. I detected a blunder which nobody seemed to be aware of. Tavel, tutor of Trinity, was not; and he argued very favourably of me in consequence. The application of the Principia I got from mss. The blunder was this: in calculating the resistance of a globe at the end of a cylinder oscillating in a resisting medium they had forgotten to notice that there is a difference between the resistance to a globe and a circle of the same diameter. The story of Whewell and Jacob cannot be true. Whewell was a very, very considerable man, I think not a great man. I have no doubt Jacob beat him in accuracy, but the supposed answer cannot be true; it is a

mere echo of what actually passed between me and Hornbuckle on the day the Tripos came out—for the truth of which I vouch. I think the examiners are taking too practical a turn; it is a waste of time to calculate actually a longitude by the help of logarithmic tables and lunar observations. It would be a fault not to know how, but a greater to be handy at it. A few minor changes in the Senate-House examinations were made in 1808* . A fifth day was added to the examination. Of the five days thus given up to it three were devoted to mathematics, one to logic, philosophy, and religion, and one to the arrangement of the brackets. Apart from the evening paper the examination on each of the first three days lasted six hours. Of these eighteen hours, eleven were assigned to book-work and seven to problems. The problem papers were set from 6 to 10 in the evening. * See Graces, December 15, 1808. CH. VII] THE MATHEMATICAL TRIPOS. 191 A letter from Whewell dated January 19, 1816, describes his examination in the Senate-House* . Jacob. Whewell. Such is the order in which we are fixed after a week's examination. . . I had before been given to understand that a great deal depended upon being able to write the greatest possible quantity in the smallest time, but of the rapidity which was actually necessary I had formed the most distant idea. I am upon no occasion a quick writer, and upon subjects where I could not go on without sometimes thinking a little I soon found myself considerably behind. I was therefore surprised, and even astonished, to find myself bracketed off, as it is called, in the second place; that is, on the day when a new division of the classes is made for the purpose of having a closer examination of the respective merits of men who come pretty near to each other, I was not classed with anybody, but placed alone in the second bracket. The man who is at the head of the list is of Caius College, and was always expected to be very high, though I do not know that anybody expected to see him so decidedly superior as to be bracketed off by himself. The tendency to cultivate mechanical rapidity was a grave evil, and lasted long after Whewell's time. According to rumour the highest honours in 1845 were obtained, to the general regret of the University, by assiduous practice in writing† . The devotion of the Cambridge school to geometrical and fluxional methods has led to its isolation from contemporary continental mathematicians. Early in the nineteenth century the evil consequence of this began to be recognized; and it was felt to be little less than a scandal that the researches of Lagrange, Laplace, and Legendre were unknown to many Cambridge mathematicians save by repute. An attempt to explain the notation and methods of the calculus as used on the Continent was made by R. Woodhouse, who stands out as the apostle of the new movement. It is doubtful if he could have brought analytical methods into vogue by himself; but his views were enthusiastically adopted by three students, Peacock, Babbage, and Herschel, who succeeded in carrying out the reforms he had suggested. They created an Analytical Society which Babbage explained was formed to advocate "the

principles of pure d-ism as opposed to the dot-age of the University." The character of the instruction in mathematics at the University has at all * S. Douglas, Life of W. Whewell, London, 1881, p. 20. † For a contemporary account of this see C.A. Bristed, Five Years in an English University, New York, 1852, pp. 233–239. 192 THE MATHEMATICAL TRIPOS. [CH. VII times largely depended on the text-books then in use, and the importance of good books of this class was emphasized by a traditional rule that questions should not be set on a new subject in the tripos unless it had been discussed in some treatise suitable and available for Cambridge students* . Hence the importance attached to the publication of the work on analytical trigonometry by Woodhouse in 1809, and of the works on the differential calculus issued by members of the Analytical Society in 1816 and 1820. In 1817 Peacock, who was moderator, introduced the symbols for differentiation into the papers set in the Senate-House examination. But his colleague continued to use the fluxional notation. Peacock himself wrote on March 17 of 1817 (i.e. shortly after the examination) on the subject as follows† : I assure you. . . that I shall never cease to exert myself to the utmost in the cause of reform, and that I will never decline any office which may increase my power to effect it. I am nearly certain of being nominated to the office of Moderator in the year 1818–19, and as I am an examiner in virtue of my office, for the next year I shall pursue a course even more decided than hitherto, since I shall feel that men have been prepared for the change, and will then be enabled to have acquired a better system by the publication of improved elementary books. I have considerable influence as a lecturer, and I will not neglect it. It is by silent perseverance only that we can hope to reduce the many-headed monster of prejudice, and make the University answer her character as the loving mother of good learning and science. In 1818 all candidates for honours, that is, all men in the first six preliminary classes, were allowed to attempt the problems: this change was made by the moderators. In 1819 G. Peacock, who was again moderator, induced his colleague to adopt the new notation. It was employed in the next year by Whewell, and in the following year by Peacock again. Henceforth the calculus in its modern language and analytical methods were freely used, new subjects were introduced, and for many years the examination provided a mathematical training fairly abreast of the times. By this time the disputations had ceased to have any immediate effect on a man's place in the tripos. Thus Whewell‡ , writing about * See ex. gr., the Grace of November 14, 1827, referred to below. † Proceedings of the Royal Society, London, 1859, vol. ix, pp. 538–9. ‡ Whewell's Writings and Correspondence, ed. Todhunter, London, 1876, vol. ii, p. 36. CH. VII] THE MATHEMATICAL TRIPOS. 193 his duties as moderator in 1820, said: You would get very exaggerated ideas of the importance attached to it [an Act] if you were to trust Cumberland; I believe it was formerly more thought of than it is now. It does not, at least immediately, produce any effect on a man's place in the tripos, and is therefore

considerably less attended to than used to be the case, and in most years is not very interesting after the five or six best men: so that I look for a considerable exercise of, or rather demand for, patience on my part. The other part of my duty in the Senate House consists in manufacturing wranglers, senior optimes, etc. and is, while it lasts, very laborious. Of the examination itself in this year he wrote as follows* : The examination in the Senate House begins to-morrow, and is rather close work while it lasts. We are employed from seven in the morning till five in the evening in giving out questions and receiving written answers to them; and when that is over, we have to read over all the papers which we have received in the course of the day, to determine who have done best, which is a business that in numerous years has often kept the examiners up the half of every night; but this year is not particularly numerous. In addition to all this, the examination is conducted in a building which happens to be a very beautiful one, with a marble floor and a highly ornamented ceiling; and as it is on the model of a Grecian temple, and as temples had no chimneys, and as a stove or a fire of any kind might disfigure the building, we are obliged to take the weather as it happens to be, and when it is cold we have the full benefit of it—which is likely to be the case this year. However, it is only a few days, and we have done with it. A sketch of the examination in the previous year from the point of view of an examinee was given by J.M.F. Wright† , but there is nothing of special interest in it. Sir George Airy‡ gave the following sketch of his recollections of the reading and studies of undergraduates of his time and of the tripos of 1823, in which he had been senior wrangler: At length arrived the Monday morning on which the examination for the B.A. degree was to begin. . . . We were all marched in a body to the Senate-House and placed in the hands of the Moderators. How the “candidates for honours” were separated from the oΈ πολλοÐ I do not know, I presume that the Acts and the Opponencies had something to do with it. The honour candidates were divided into six groups: and of these Nos. 1 and 2 (united), Nos. 3 and 4 (united), and Nos. 5 and 6 (united), * S. Douglas, Life of Whewell, London, 1881, p. 56. † Alma Mater, London, 1827, vol. ii, pp. 58–98. ‡ See Nature, vol. 35, Feb. 24, 1887, pp. 397–399. 194 THE MATHEMATICAL TRIPOS. [CH. VII received the questions of one Moderator. No. 1, Nos. 2 and 3 (united), Nos. 4 and 5 (united), and No. 6, received those of the other Moderator. The Moderators were reversed on alternate days. There were no printed question-papers: each examiner had his bound manuscript of questions, and he read out his first question; each of the examinees who thought himself able proceeded to write out his answer, and then orally called out “Done.” The Moderator, as soon as he thought proper, proceeded with another question. I think there was only one course of questions on each day (terminating before 3 o’clock, for the Hall dinner). The examination continued to Friday mid-day. On Saturday morning, about 8 o’clock, the list of honours (manuscript) was nailed on the door of

the Senate-House. It must be remembered that for students pursuing the normal course the Senate-House examination still provided the only avenue to a degree. That examination involved a knowledge of the elements of moral philosophy and theology, an acquaintance with the rules of formal logic, and the power of reading and writing scholastic Latin, but mathematics was the predominant subject, and this led to a certain one-sidedness in education. The evil of this was generally recognized, and in 1822 various reforms were introduced in the University curriculum; in particular the Previous Examination was established for students in their second year, the subjects being prescribed Greek and Latin works, a Gospel, and Paley's Evidences. Set classical books were introduced in the final examination of poll-men; and another honour or tripos examination was established for classical students. These alterations came into effect in 1824; and henceforth the Senate-House examination, so far as it related to mathematical students, was known as the Mathematical Tripos. In 1827 the scheme of examination in the Mathematical Tripos was revised. By regulations* which came into operation in January, 1828, another day was added, so that the examination extended over four days, exclusive of the day of arranging the brackets; the number of hours of examination was twenty-three, of which seven were assigned to problems. On the first two days all the candidates had the same questions proposed to them, inclusive of the evening problems, and the examination on those days excluded the higher and more difficult parts of mathematics, in order, in the words of the report, "that the candidates for honours may not be induced to pursue the more abstruse and profound mathematics, to the neglect of more elementary knowl- * See the Grace, November 14, 1827. CH. VII] THE MATHEMATICAL TRIPOS. 195 edge." Accordingly, only such questions as could be solved without the aid of the differential calculus were set on the first day, and those set on the second day involved only its elementary applications. The classes were reduced to four, determined as before by the exercises in the schools. The regulations of 1827 definitely prescribed that all the papers should be printed. They are also noticeable as being the last which gave the examiners power to ask vivâ voce questions, though such questions were restricted to "propositions contained in the mathematical works commonly in use in the University, or examples and explanations of such propositions." It was further recommended that no paper should contain more questions than well-prepared students could be expected to answer within the time allowed for it, but that if any candidate, before the end of the time, had answered all the questions in the paper, the examiners might propose additional questions vivâ voce. The power of granting honorary optime degrees now ceased; it had already fallen into abeyance. Henceforth the examination was conducted under definite rules, and I no longer concern myself with the traditions of the examination. In the same year as these changes became effective the examination for the poll degree was separated from the

tripos with different sets of papers and a different schedule of subjects* . It was, however, still nominally considered as forming part of the Senate-House examination, and until 1858 those who obtained a poll degree were arranged in four classes, described as fourth, fifth, sixth, and seventh, as if in continuation of the junior optimes or third class of the tripos. The year 1828 therefore shews us the Senate-House examination dividing into two distinct parts; one known as the mathematical tripos, the other as the poll examination. In 18511 the classical tripos was made independent of the mathematical tripos, and thus provided a separate avenue to a degree. Historically, the examination usually known as “the General” represents the old Senate-House examination for the poll-men, but gradually it has been moved to an earlier period in the normal course taken by the men. In 1852 another set of examinations, at first called “the professor’s examinations,” and now somewhat modified and known as “the Specials,” was instituted for all poll-men to take before they could qualify for * See Grace, May 21, 1828, confirming a Report of March 27, 1828. 1. ‘1850’ corrected to ‘1851’ as per errata sheet 196 THE MATHEMATICAL TRIPOS. [CH. VII a degree. In 1858 the fiction that the poll-examinations were part of the Senate-House examination was abandoned, and subsequently they have been treated as providing an independent method of obtaining the degree: thus now the mathematical tripos is the sole representative of the old Senate-House examination. Since 1858 numerous other ways of obtaining the degree have been established, and it is now possible to get it by shewing proficiency in very special, or even technical subjects. Further changes in the mathematical tripos were introduced in 1833* . The duration of the examination, before the issue of the brackets, was extended to five days, and the number of hours of examination on each day was fixed at five and a-half. Seven and a-half hours were assigned to problems. The examination on the first day was confined to subjects that did not require the differential calculus, and only the simplest applications of the calculus were permitted on the second and third days. During the first four days of the examination the same papers were set to all the candidates alike, but on the fifth day the examination was conducted according to classes. No reference was made to vivâ voce questions, and the preliminary classification of the brackets only survived in a permission to re-examine candidates if it were found necessary. This permissive rule remained in force till 1848, but I believe that in fact it was never used. In December, 1834, a few unimportant details were amended. Mr Earnshaw, the senior moderator in 1836, informed me that he believed that the tripos of that year was the earliest one in which all the papers were marked, and that in previous years the examiners had partly relied on their impression of the answers given. New regulations came into force† in 1839. The examination now lasted for six days, and continued as before for five hours and a-half each day. Eight and a-half hours were assigned to problems. Throughout the whole examination the same papers were set to all

candidates, and no reference was made to any preliminary classes. It was no doubt in accordance with the spirit of these changes that the acts in the schools should be abolished, but they were discontinued by the moderators of 1839 without the authority of the Senate. The examination was for the future confined‡ to mathematics. * See the Grace of April 6, 1832. † See Grace of May 30, 1838. ‡ Under a badly-worded grace passed on May 11, 1842, on the recommendation of CH. VII] THE MATHEMATICAL TRIPOS. 197 In the same year in which the new scheme came into force a proposal to again reopen the subject was rejected (March 6). The difficulty of bringing professorial lectures into relation with the needs of students has more than once been before the University. The desirability of it was emphasized by a Syndicate in February, 1843, which recommended conferences at stated intervals between the mathematical professors and examiners. This report foreshadowed the creation of a Mathematical Board, but it was rejected by the Senate on March 31. A few years later the scheme of the examination was again reconstructed by regulations* which came into effect in 1848. The duration of the examination was extended to eight days. The examination lasted in all forty-four and a-half hours, twelve of which were devoted to problems. The first three days were assigned to specified elementary subjects; in the papers set on these days riders were to be set as well as bookwork, but the methods of analytical geometry and the calculus were excluded. After the first three days there was a short interval, at the end of which the examiners issued a list of those who had so acquitted themselves as to deserve mathematical honours. Only those whose names were contained in this list were admitted to the last five days of the examination, which was devoted to the higher parts of mathematics. After the conclusion of the examination the examiners, taking into account the whole eight days, brought out the list arranged in order of merit. No provision was made for any rearrangement of this list corresponding to the examination of the brackets. The arrangements of 1848 remained in force till 1873. In the same year as these regulations came into force, a Board of Mathematical Studies (consisting of the mathematical professors, and the moderators and examiners for the current year and the two preceding years) was constituted† by the Senate. From that time forward their minutes supply a permanent record of the changes gradually introduced into the tripos. I do not allude to subsequent changes which only concern unimportant details of the examination. a syndicate on theological studies, candidates for mathematical honours were, after 1846, required to attend the poll examination on Paley’s Moral Philosophy, the New Testament and Ecclesiastical History. This had not been the intention of the Senate, and on March 14, 1855, a grace was passed making this clear. * See Grace of May 13, 1846, confirming a report of March 23, 1846. † See Grace of October 31, 1848. 198 THE MATHEMATICAL TRIPOS. [CH. VII In May, 1849, the Board issued a report in which, after giving a review of the past and existing state of the

mathematical studies in the University, they recommended that the mathematical theories of electricity, magnetism, and heat should not be admitted as subjects of examination. In the following year they issued a second report, in which they recommended the omission of elliptical integrals, Laplace's coefficients, capillary attraction, and the figure of the earth considered as heterogeneous, as well as a definite limitation of the questions in lunar and planetary theory. In making these recommendations the Board were only giving expression to what had become the practice in the examination. I may, in passing, mention a curious attempt which was made in 1853 and1 1854 to assist candidates in judging of the relative difficulty of the questions asked. This was effected by giving to the candidates, at the same time as the examination paper, a slip of paper on which the marks assigned for the bookwork and rider for each question were printed. I mention the fact merely because these things are rapidly forgotten and not because it is of any intrinsic value. I possess a complete set of slips which came to me from Dr Todhunter. In 1856 there was an amusing difference of opinion between the Vice-Chancellor and the moderators. The Vice-Chancellor issued a notice to say that for the convenience of the University he had directed the tripos lists to be published at 8.0 a.m. as well as at 9.0 a.m., but when the University arrived at 8.0 the moderators said that they should not read the list until 9.0. Considerable changes in the scheme of examination were introduced in 1873. On December 5, 1865, the Board had recommended the addition of Laplace's coefficients and the figure of the earth considered as heterogeneous as subjects of the examination; the report does not seem to have been brought before the Senate, but attention was called to the fact that certain departments of mathematics and mathematical physics found no place in the tripos schedules, and were neglected by most students. Accordingly a syndicate was appointed on June 6, 1867, to consider the matter, and a scheme drawn up by them was approved in 1868* and came into effect in 1873. The new scheme of examination * See Grace of June 2, 1868. It was carried by a majority of only five in a house of 75. 1. '1853 and' inserted as per errata sheet CH. VII] THE MATHEMATICAL TRIPOS. 199 was framed on the same lines as that of 1848. The subjects in the first three days were left unchanged, but an extra day was added, devoted to the elements of mathematical physics. The essence of the modification was the greatly extended range of subjects introduced into the schedule of subjects for the last five days, and their arrangement in divisions, the marks awarded to the five divisions being approximately those awarded to the three days in proportion to 2, 1, 1, 1, 2/3 to 1 respectively. Under the new regulations the number of examiners was increased from four to five. The assignment of marks to groups of subjects was made under the impression that the best candidates would concentrate their abilities on a selection of subjects from the various divisions. But it was found that, unless the questions were made extremely difficult, more marks could be obtained by reading

superficially all the subjects in the five divisions than by attaining real proficiency in a few of the higher ones: while the wide range of subjects rendered it practically impossible to thoroughly cover all the ground in the time allowed. The failure was so pronounced that in 1877 another syndicate was appointed to consider the mathematical studies and examinations of the University. They presented an elaborate scheme, but on May 13, 1878, some of the most important parts of it were rejected and their subsequent proposals, accepted on November 21, 1878 (by 62 to 49), represented a compromise which pleased few members of the Senate* . Under the new scheme which came into force in 1882 the tripos was divided into two portions: the first portion was taken at the end of the third year of residence, the range of subjects being practically the same as in the regulations of 1848, and the result brought out in the customary order of merit. The second portion was held in the following January, and was open only to those who had been wranglers in the preceding June. This portion was confined to higher mathematics and appealed chiefly to specialists. The result was brought out in three classes, each arranged in alphabetical order. The moderators and examiners conducted the whole examination without any extraneous aid. In the next year or two further amendments were made† , moving * See Graces of May 17, 1877; May 29, 1878; and November 21, 1878: and the Cambridge University Reporter, April 2, May 14, June 4, October 29, November 12, and November 26, 1878. † See the Graces of December 13, 1883; June 12, 1884; February 10, 1885; October 29, 1885; and June 1, 1886. 200 THE MATHEMATICAL TRIPOS. [CH. VII the second part to the June of the fourth year, throwing it open to all men who had graduated in the tripos of the previous June, and transferring the conduct of the examination in Part 2 to four examiners nominated by the Board: this put it largely under the control of the professors. The range of subjects of Part 2 was also greatly extended, and candidates were encouraged to select only a few of them. It was further arranged that Part 1 might be taken at the end of a man’s second year of residence, though in that case it would not qualify for a degree. A student who availed himself of this leave could take Part 2 at the end either of his third or of his fourth year as he pleased. The tripos is still (1905) carried on under the scheme of 1886. The general effect of these changes was to destroy the homogeneity of the tripos. Objections to the new scheme were soon raised. Especially, it was said—whether rightly or wrongly—that Part 1 contained too many technical subjects to serve as a general educational training for any save mathematicians; that the distinction of a high place in the historic list produced on its results tended to prevent the best men taking it in their second year, though by this time they had read sufficiently to be able to do so; and that Part 2 was so constructed as to appeal only to professional mathematicians, and that thus the higher branches of mathematics were neglected by all save a few specialists. Whatever value be attached to these opinions,

the number of students studying mathematics fell rapidly under the scheme of 1886. In 1899 the Board proposed* further changes. These seemed to some members of the Senate to be likely to still further decrease the number of men who took up the subject as one of general education. At any rate the two main proposals were rejected (February 15, 1900) by votes of 151 to 130 and 161 to 129. The curious origin of the term tripos has been repeatedly told, and an account of it may fitly close this chapter. Formerly there were three principal occasions on which questionists were admitted to the title or degree of bachelor. The first of these was the comitia priora, held on Ash-Wednesday, for the best men in the year. The next was the comitia posteriora, which was held a few weeks later, and at which any student who had distinguished himself in the quadragesimal exercises subsequent to Ash-Wednesday had his seniority reserved to him. Lastly, there was the comitia minora, for students who had in no special way * See Reports dated November 7, 1899, and January 20, 1900. CH. VII] THE MATHEMATICAL TRIPOS. 201 distinguished themselves. In the fifteenth century an important part in the ceremony on each of these occasions was taken by a certain “ould bachilour,” who sat upon a three-legged stool or tripos before the proctors and tested the abilities of the would-be graduates by arguing some question with the “eldest son,” who was selected from them as their representative. To assist the latter in what was often an unequal contest his “father,” that is, the officer of his college who was to present him for his degree, was allowed to come to his assistance. Originally the ceremony was a serious one, and had a certain religious character. It took place in Great St Mary’s Church, and marked the admission of the student to a position with new responsibilities, while the season of Lent was chosen with a view to bring this into prominence. The Puritan party objected to the observance of such ecclesiastical ceremonies, and in the course of the sixteenth century they introduced much license and buffoonery into the proceedings. The part played by the questionist became purely formal. A serious debate still sometimes took place between the father of the senior questionist and a regent master who represented the University; but the discussion was prefaced by a speech by the bachelor, who came to be called Mr Tripos just as we speak of a judge as the bench, or of a rower as an oar. Ultimately public opinion permitted Mr Tripos to say pretty much what he pleased, so long as it was not dull and was scandalous. The speeches he delivered or the verses he recited were generally preserved by the Registrary, and were known as the tripos verses: originally they referred to the subjects of the disputations then propounded. The earliest copies now extant are those for 1575. The University officials, to whom the personal criticisms in which the tripos indulged were by no means pleasing, repeatedly exhorted him to remember “while exercising his privilege of humour, to be modest withal.” In 1740, says Mr Mullinger* , “the authorities after condemning the excessive license of the tripos announced that the comitia at Lent

would in future be conducted in the Senate-House; and all members of the University, of whatever order or degree, were forbidden to assail or mock the disputants with scurrilous jokes or unseemly witticisms. About the year 1747–8, the moderators initiated the practice of printing the honour lists on the back of the sheets containing the * J.B. Mullinger, The University of Cambridge, Cambridge, vol. i, 1873, pp. 175, 176. 202 THE MATHEMATICAL TRIPOS. [CH. VII tripos verses, and after the year 1755 this became the invariable practice. By virtue of this purely arbitrary connection these lists themselves became known as the tripos; and eventually the examination itself, of which they represented the results, also became known by the same designation." The tripos ceased to deliver his speech about 1750, but the issue of tripos verses continued for nearly 150 years longer. During the latter part of this time they consisted of four sets of verses, usually in Latin, but occasionally in Greek, in which current topics in the University were treated lightly or seriously as the writer thought fit. They were written for the proctors and moderators by undergraduates or commencing bachelors, who were supposed each to receive a pair of white kid gloves in recognition of their labours. Thus gradually the word tripos changed its meaning "from a thing of wood to a man, from a man to a speech, from a speech to sets of verses, from verses to a sheet of coarse foolscap paper, from a paper to a list of names, and from a list of names to a system of examination* ." In 1895 the proctors and moderators, without consulting the Senate, sent in no verses, and thus, in spite of widespread regret, an interesting custom of many centuries standing was destroyed. No doubt it may be argued that the custom had never been embodied in statute or ordinance, and thus was not obligatory. Also it may be said that its continuance was not of material benefit to anybody. I do not think that such arguments are conclusive, and personally I regret the disappearance of historic ties unless it can be shown that they cause inconvenience, which of course in this case could not be asserted. * Wordsworth, Scholae Academicae, Cambridge, 1877, p. 21. CHAPTER VIII. THREE GEOMETRICAL PROBLEMS. Among the more interesting geometrical problems of antiquity are three questions which attracted the special attention of the early Greek mathematicians. Our knowledge of geometry is derived from Greek sources, and thus these questions have attained a classical position in the history of the subject. The three questions to which I refer are (i) the duplication of a cube, that is, the determination of the side of a cube whose volume is double that of a given cube; (ii) the trisection of an angle; and (iii) the squaring of a circle, that is, the determination of a square whose area is equal to that of a given circle—each problem to be solved by a geometrical construction involving the use of straight lines and circles only, that is, by Euclidean geometry. With the restriction last mentioned all three problems are insoluble† . To duplicate a cube the length of whose side is a, we have to find a line of length x, such that $x^3 = 2a^3$. Again, to trisect a given angle, we may proceed to

find the sine of the angle, say a, then, if x is the sine of an angle equal to one-third of the given angle, we have 4x 3 = 3x − a. Thus the first and second problems, when considered analytically, require the solution of a cubic equation; and since a construction by means of circles (whose equations are of the form x 2 + y 2 + ax + by + c = 0) and straight lines (whose equations are of the form αx + βy + γ = 0) cannot be equivalent to the solution of a cubic equation, it is inferred that the problems are insoluble if in our † F. Klein, Vorträge über ausgewählte Fragen der Elementargeometrie, Leipzig, 1895. 203 204 THREE GEOMETRICAL PROBLEMS. [CH. VIII constructions we are restricted to the use of circles and right lines. If the use of the conic sections is permitted, both of these questions can be solved in many ways. The third problem is different in character, but under the same restrictions it also is insoluble. I propose to give some of the constructions which have been proposed for solving the first two of these problems. To save space, I shall not draw the necessary diagrams, and in most cases I shall not add the proofs: the latter present but little difficulty. I shall conclude with some historical notes on approximate solutions of the quadrature of the circle. The Duplication of the Cube* . The problem of the duplication of the cube was known in ancient times as the Delian problem, in consequence of a legend that the Delians had consulted Plato on the subject. In one form of the story, which is related by Philoponus† , it is asserted that the Athenians in 430 b.c., when suffering from the plague of eruptive typhoid fever, consulted the oracle at Delos as to how they could stop it. Apollo replied that they must double the size of his altar which was in the form of a cube. To the unlearned suppliants nothing seemed more easy, and a new altar was constructed either having each of its edges double that of the old one (from which it followed that the volume was increased eight-fold) or by placing a similar cubic altar next to the old one. Whereupon, according to the legend, the indignant god made the pestilence worse than before, and informed a fresh deputation that it was useless to trifle with him, as his new altar must be a cube and have a volume exactly double that of his old one. Suspecting a mystery the Athenians applied to Plato, who referred them to the geometricians. The insertion of Plato's name is an obvious anachronism. Eratosthenes‡ relates a somewhat similar story, but with Minos as the propounder of the problem. * See Historia Problematis de Cubi Duplicatione by N.T. Reimer, Göttingen, 1798; and Historia Problematis Cubi Duplicandi by C.H. Biering, Copenhagen, 1844: also Das Delische Problem, by A. Sturm, Linz, 1895–7. Some notes on the subject are given in my History of Mathematics. † Philoponus ad Aristotelis Analytica Posteriora, bk. i, chap. vii. ‡ Archimedis Opera cum Eutocii Commentariis, ed. Torelli, Oxford, 1792, p. 144; ed. Heiberg, Leipzig, 1880–1, vol. iii, pp. 104–107. CH. VIII] THE DUPLICATION OF THE CUBE. 205 In an Arab work, the Greek legend was distorted into the following extraordinarily impossible piece of history, which I cite as a curiosity of its kind. "Now in the days of Plato," says the writer, "a

plague broke out among the children of Israel. Then came a voice from heaven to one of their prophets, saying, ‘Let the size of the cubic altar be doubled, and the plague will cease’; so the people made another altar like unto the former, and laid the same by its side. Nevertheless the pestilence continued to increase. And again the voice spake unto the prophet, saying, ‘They have made a second altar like unto the former, and laid it by its side, but that does not produce the duplication of the cube.’ Then applied they to Plato, the Grecian sage, who spake to them, saying, ‘Ye have been neglectful of the science of geometry, and therefore hath God chastised you, since geometry is the most sublime of all the sciences.’ Now, the duplication of a cube depends on a rare problem in geometry, namely. . . ”. And then follows the solution of Apollonius, which is given later. If a is the length of the side of the given cube and x that of the required cube, we have x 3 = 2a 3 , that is, x : a = √3 2 : 1. It is probable that the Greeks were aware that the latter ratio is incommensurable, in other words, that no two integers can be found whose ratio is the same as that of √3 2 : 1, but it did not therefore follow that they could not find the ratio by geometry: in fact, the side and diagonal of a square are instances of lines whose numerical measures are incommensurable. I proceed now to give some of the geometrical constructions which have been proposed for the duplication of the cube* . With one exception, I confine myself to those which can be effected by the aid of the conic sections. Hippocrates† (circ. 420 b.c.) was perhaps the earliest mathematician who made any progress towards solving the problem. He did not give a geometrical construction, but he reduced the question to that of finding two means between one straight line (a), and another twice as long (2a). If these means are x and y, we have a : x = x : y = y : 2a, from which it follows that x 3 = 2a 3 . It is in this form that the problem * On the application to this problem of the traditional Greek methods of analysis by Hero and Philo (leading to the solution by the use of Apollonius’s circle), by Nicomedes (leading to the solution by the use of the conchoid), and by Pappus (leading to the solution by the use of the cissoid), see Geometrical Analysis by J. Leslie, Edinburgh, second edition, 1811, pp. 247–250, 453. † Proclus, ed. Friedlein, pp. 212, 213. 206 THREE GEOMETRICAL PROBLEMS. [CH. VIII is always presented now. Formerly any process of solution by finding these means was called a mesolabum. One of the first solutions of the problem was that given by Archytas* in or about the year 400 b.c. His construction is equivalent to the following. On the diameter OA of the base of a right circular cylinder describe a semicircle whose plane is perpendicular to the base of the cylinder. Let the plane containing this semicircle rotate round the generator through O, then the surface traced out by the semicircle will cut the cylinder in a tortuous curve. This curve will itself be cut by a right cone, whose axis is OA and semi-vertical angle is (say) 60◦ , in a point P, such that the projection of OP on the base of the cylinder will be to the radius of the cylinder in the ratio of the side of

the required cube to that of the given cube. Of course the proof given by Archytas is geometrical; and it is interesting to note that in it he shows himself familiar with the results of the propositions Euc. iii, 18, iii, 35, and xi, 19. To show analytically that the construction is correct, take OA as the axis of x, and the generator of the cylinder drawn through O as axis of z, then with the usual notation, in polar coordinates, if a is the radius of the cylinder, we have for the equation of the surface described by the semicircle r = 2a sin θ; for that of the cylinder r sin θ = 2a cos ϕ; and for that of the cone sin θ cos ϕ = 1 2 . These three surfaces cut in a point such that sin3 θ = 1 2 , and therefore (r sin θ) 3 = 2a 3 . Hence the volume of the cube whose side is r sin θ is twice that of the cube whose side is a. The construction attributed to Plato† (circ. 360 b.c.) depends on the theorem that, if CAB and DAB are two right-angled triangles, having one side, AB, common, their other sides, AD and BC, parallel, and their hypothenuses, AC and BD, at right angles, then if these hypothenuses cut in P, we have P C : P B = P B : P A = P A : P D. Hence, if such a figure can be constructed having P D = 2P C, the problem will be solved. It is easy to make an instrument by which the figure can be drawn. The next writer whose name is connected with the problem is Menaechmus‡ , who in or about 340 b.c. gave two solutions of it. In the first of these he pointed out that two parabolas having a common vertex, axes at right angles, and such that the latus rectum * Archimedis Opera, ed. Torelli, p. 143; ed. Heiberg, vol. iii, pp. 98–103. † Ibid., ed. Torelli, p. 135; ed. Heiberg, vol. iii, pp. 66–71. ‡ Ibid., ed. Torelli, pp. 141–143; ed. Heiberg, vol. iii, pp. 92–99. CH. VIII] THE DUPLICATION OF THE CUBE. 207 of the one is double that of the other will intersect in another point whose abscissa (or ordinate) will give a solution. If we use analysis this is obvious; for, if the equations of the parabolas are y 2 = 2ax and x 2 = ay, they intersect in a point whose abscissa is given by x 3 = 2a 3 . It is probable that this method was suggested by the form in which Hippocrates had cast the problem: namely, to find x and y so that a : x = x : y = y : 2a, whence we have x 2 = ay and y 2 = 2ax. The second solution given by Menaechmus was as follows. Describe a parabola of latus rectum l. Next describe a rectangular hyperbola, the length of whose real axis is 4l, and having for its asymptotes the tangent at the vertex of the parabola and the axis of the parabola. Then the ordinate and the abscissa of the point of intersection of these curves are the mean proportionals between l and 2l. This is at once obvious by analysis. The curves are x 2 = ly and xy = 2l 2 . These cut in a point determined by x 3 = 2l 3 and y 3 = 4l 3 . Hence l : x = x : y = y : 2l. The solution of Apollonius* , which was given about 220 b.c., was as follows. The problem is to find two mean proportionals between two given lines. Construct a rectangle OADB, of which the adjacent sides OA and OB are respectively equal to the two given lines. Bisect AB in C. With C as centre describe a circle cutting OA produced in a and cutting OB produced in b, so that aDb shall be a straight line. If this circle can be so described, it will follow that OA : Bb = Bb : Aa =

Aa : OB, that is, Bb and Aa are the two mean proportionals between OA and OB. It is impossible to construct the circle by Euclidean geometry, but Apollonius gave a mechanical way of describing it. The only other construction of antiquity to which I will refer is that given by Diocles and Sporus† . It is as follows. Take two sides of a rectangle OA, OB, equal to the two lines between which the means are sought. Suppose OA to be the greater. With centre O and radius OA describe a circle. Let OB produced cut the circumference in C and let AO produced cut it in D. Find a point E on BC so that if DE cuts AB produced in F and cuts the circumference in G, then F E = EG. If E can be found, then OE is the first of the means between OA and OB. Diocles invented the cissoid in order to determine E, but it can be found equally conveniently by the aid of conics. * Ibid., ed. Torelli, p. 137; ed. Heiberg, vol. iii, pp. 76–79. The solution is given in my History of Mathematics, London, 1901, p. 84. † Ibid., ed. Torelli, pp. 138, 139, 141; ed. Heiberg, vol. iii, pp. 78–84, 90–93. 208 THREE GEOMETRICAL PROBLEMS. [CH. VIII In more modern times several other solutions have been suggested. I may allude in passing to three given by Huygens* , but I will enunciate only those proposed respectively by Vieta, Descartes, Gregory of St Vincent, and Newton. Vieta's construction is as follows† . Describe a circle, centre O, whose radius is equal to half the length of the larger of the two given lines. In it draw a chord AB equal to the smaller of the two given lines. Produce AB to E so that BE = AB. Through A draw a line AF parallel to OE. Through O draw a line DOCF G, cutting the circumference in D and C, cutting AF in F, and cutting BA produced in G, so that GF = OA. If this line can be drawn then AB : GC = GC : GA = GA : CD. Descartes pointed out‡ that the curves x 2 = ay and x 2+y 2 = ay+bx cut in a point (x, y) such that a : x = x : y = y : b. Of course this is equivalent to the first solution given by Menaechmus, but Descartes preferred to use a circle rather than a second conic. Gregory's construction was given in the form of the following theorem§ . The hyperbola drawn through the point of intersection of two sides of a rectangle so as to have the two other sides for its asymptotes meets the circle circumscribing the rectangle in a point whose distances from the asymptotes are the mean proportionals between two adjacent sides of the rectangle. This is the geometrical expression of the proposition that the curves xy = ab and x 2 + y 2 = ay + bx cut in a point (x, y) such that a : x = x : y = y : b. One of the constructions proposed by Newton is as follows‖ . Let OA be the greater of two given lines. Bisect OA in B. With centre O and radius OB describe a circle. Take a point C on the circumference so that BC is equal to the other of the two given lines. From O draw ODE cutting AC produced in D, and BC produced in E, so that the intercept DE = OB. Then BC : OD = OD : CE = CE : OA. Hence OD and CE are two mean proportionals between any two lines BC and OA. * Opera Varia, Leyden, 1724, pp. 393–396. † Opera Mathematica, ed. Schooten, Leyden, 1646, prop, v, pp. 242–243. ‡ Geometria, bk. iii, ed. Schooten, Amsterdam, 1659, p. 91. § Gregory of St Vincent, Opus Geometricum

Quadraturae Circuli, Antwerp, 1647, bk. vi, prop. 138, p. 602. ‖ Arithmetica Universalis, Ralphson's (second) edition, 1728, p. 242; see also pp. 243, 245. CH. VIII] THE TRISECTION OF AN ANGLE. 209 The Trisection of an Angle* . The trisection of an angle is the second of these classical problems, but tradition has not enshrined its origin in romance. The following two constructions are among the oldest and best known of those which have been suggested; they are quoted by Pappus† , but I do not know to whom they were due originally. The first of them is as follows. Let AOB be the given angle. From any point P in OB draw PM perpendicular to OA. Through P draw P R parallel to OA. On MP take a point Q so that if OQ is produced to cut P R in R then QR = 2 ·OP. If this construction can be made, then AOR = 1 3AOB. The solution depends on determining the position of R. This was effected by a construction which may be expressed analytically thus. Let the given angle be tan−1 (b/a). Construct the hyperbola xy = ab, and the circle (x − a) 2 + (y − b) 2 = 4(a 2 + b 2). Of the points where they cut, let x be the abscissa which is greatest, then P R = x − a, and tan−1 (b/x) = 1 3 tan−1 (b/a). The second construction is as follows. Let AOB be the given angle. Take OB = OA, and with centre O and radius OA describe a circle. Produce AO indefinitely and take a point C on it external to the circle so that if CB cuts the circumference in D then CD shall be equal to OA. Draw OE parallel to CDB. Then, if this construction can be made, AOE = 1 3AOB. The ancients determined the position of the point C by the aid of the conchoid: it could be also found by the use of the conic sections. I proceed to give a few other solutions; confining myself to those effected by the aid of conics. Among the other constructions given by Pappus‡ I may quote the following. Describe a hyperbola whose eccentricity is two. Let its centre be C and its vertices A and A' . Produce CA' to S so that A'S = CA' . On AS describe a segment of a circle to contain the given angle. Let * On the bibliography of the subject see the supplements to L'Intermédiaire des Mathématiciens, Paris, May and June, 1904. † Pappus, Mathematicae Collectiones, bk. iv, props. 32, 33 (ed. Commandino, Bonn, 1670, pp. 97–99). On the application to this problem of the traditional Greek methods of analysis see Geometrical Analysis, by J. Leslie, Edinburgh, second edition, 1811, pp. 245–247. ‡ Pappus, bk. iv, prop. 34, pp. 99–104. 210 THREE GEOMETRICAL PROBLEMS. [CH. VIII the orthogonal bisector of AS cut this segment in O. With centre O and radius OA or OS describe a circle. Let this circle cut the branch of the hyperbola through A' in P. Then SOP = 1 3 SOA. In modern times one of the earliest of the solutions by a direct use of conics was suggested by Descartes, who effected it by the intersection of a circle and a parabola. His construction* is equivalent to finding the points of intersection other than the origin, of the parabola y 2 = 1 4 x and the circle x 2+y 2− 13 4 x+4ay = 0. The ordinates of these points are given by the equation 4y 3 = 3y − a. The smaller positive root is the sine of one-third of the angle whose sine is a. The demonstration is ingenious. One of the solutions proposed by Newton is practically equivalent to

the third one which is quoted above from Pappus. It is as follows† . Let A be the vertex of one branch of a hyperbola whose eccentricity is two, and let S be the focus of the other branch. On AS describe the segment of a circle containing an angle equal to the supplement of the given angle. Let this circle cut the S branch of the hyperbola in P. Then P AS will be equal to one-third of the given angle. The following elegant solution is due to Clairaut‡ . Let AOB be the given angle. Take OA = OB, and with centre O and radius OA describe a circle. Join AB, and trisect it in H, K, so that AH = HK = KB. Bisect the angle AOB by OC cutting AB in L. Then AH = 2 · HL. With focus A, vertex H, and directrix OC, describe a hyperbola. Let the branch of this hyperbola which passes through H cut the circle in P. Draw PM perpendicular to OC and produce it to cut the circle in Q. Then by the focus and directrix property we have AP : PM = AH : HL = 2 : 1, ∴ AP = 2 · PM = P Q. Hence, by symmetry, AP = P Q = QR. ∴ AOP = P OQ = QOR. I may conclude by giving the solution which Chasles§ regards as the most fundamental. It is equivalent to the following proposition. If OA and OB are the bounding radii of a circular arc AB, then a rectangular hyperbola having OA for a diameter and passing through the point of intersection of OB with the tangent to the circle at A will pass through * Geometria, bk. iii, ed. Schooten, Amsterdam, 1659, p. 91. † Arithmetica Universalis, problem xlii, Ralphson's (second) edition, London, 1728, p. 148; see also pp. 243–245. ‡ I believe that this was first given by Clairaut, but I have mislaid my reference. The construction occurs as an example in the Geometry of Conics, by C. Taylor, Cambridge, 1881, No. 308, p. 126. § Traité des sections coniques, Paris, 1865, art. 37, p. 36. CH. VIII] THE QUADRATURE OF THE CIRCLE. 211 one of the two points of trisection of the arc. The Quadrature of the Circle* . The object of the third of the classical problems was the determination of a side of a square whose area should be equal to that of a given circle. The investigation, previous to the last two hundred years, of this question was fruitful in discoveries of allied theorems, but in more recent times it has been abandoned by those who are able to realize what is required. The history of this subject has been treated by competent writers in such detail that I shall content myself with a very brief allusion to it. Archimedes showed† (what possibly was known before) that the problem is equivalent to finding the area of a right-angled triangle whose sides are equal respectively to the perimeter of the circle and the radius of the circle. Half the ratio of these lines is a number, usually denoted by π. That this number is incommensurable had been long suspected, and has been now demonstrated. The earliest analytical proof of it was given by Lambert‡ in 1761; in 1803 Legendre§ extended the proof to show that π 2 was also incommensurable; and recently Lindemann‖ has * See Montucla's Histoire des Recherches sur la Quadrature du Cercle, edited by P.L. Lacroix, Paris, 1831; also various articles by A. De Morgan, and especially his Budget of Paradoxes, London, 1872. A popular sketch of the subject has been compiled by H. Schubert, Die Quadratur des

Zirkels, Hamburg, 1889; and since the publication of the earlier editions of these Recreations Prof. F. Rudio of Zurich has given an analysis of the arguments of Archimedes, Huygens, Lambert, and Legendre on the subject, with an introduction on the history of the problem, Leipzig, 1892. † Archimedis Opera, KÔκλου μὲτρησις, prop. i, ed. Torelli, pp. 203–205; ed. Heiberg, vol. i, pp. 258–261, vol. iii, pp. 269–277. ‡ Mémoires de l'Académie de Berlin for 1761, Berlin, 1768, pp. 265–322. § Legendre's Geometry, Brewster's translation, Edinburgh, 1824, pp. 239–245. ‖ Ueber die Zahl π, Mathematische Annalen, Leipzig, 1882, vol. xx, pp. 213– 225. The proof leads to the conclusion that, if x is a root of a rational integral algebraical equation, then e x cannot be rational: hence, if πi was the root of such an equation, e πi could not be rational; but e πi is equal to −1, and therefore is rational; hence πi cannot be the root of such an algebraical equation, and therefore neither can π. 212 THREE GEOMETRICAL PROBLEMS. [CH. VIII shown that π cannot be the root of a rational algebraical equation. An earlier attempt by James Gregory to give a geometrical demonstration of this is worthy of notice. Gregory proved* that the ratio of the area of any arbitrary sector to that of the inscribed or circumscribed polygons is not expressible by a finite number of algebraical terms. Hence he inferred that the quadrature was impossible. This was accepted by Montucla, but it is not conclusive, for it is conceivable that some particular sector might be squared, and this particular sector might be the whole circle. In connection with Gregory's proposition above cited, I may add that Newton† proved that in any closed oval an arbitrary sector bounded by the curve and two radii cannot be expressed in terms of the co-ordinates of the extremities of the arc by a finite number of algebraical terms. The argument is condensed and difficult to follow: the same reasoning would show that a closed oval curve cannot be represented by an algebraical equation in polar co-ordinates. From this proposition no conclusion as to the quadrature of the circle is to be drawn, nor did Newton draw any. In the earlier editions of this work I expressed an opinion that the result presupposed a particular definition of the word oval, but on more careful reflection I think that the conclusion is valid without restriction. With the aid of the quadratrix, or the conchoid, or the cissoid, the quadrature of the circle is easy, but the construction of those curves assumes a knowledge of the value of π, and thus the question is begged. I need hardly add that, if π represented merely the ratio of the circumference of a circle to its diameter, the determination of its numerical value would have but slight interest. It is however a mere accident that π is defined usually in that way, and it really represents a certain number which would enter into analysis from whatever side the subject was approached. I recollect a distinguished professor explaining how different would be the ordinary life of a race of beings born, as easily they might be, so that the fundamental processes of arithmetic, algebra and geometry were different to those which seem to us so evident, but, he added, it is impossible to conceive of a

universe in which e and π should not exist. * Vera Circuli et Hyperbolae Quadratura, Padua, 1668: this is reprinted in Huygens's Opera Varia, Leyden, 1724, pp. 405–462. † Principia, bk. i, section vi, lemma xxviii. CH. VIII] APPROXIMATIONS TO THE VALUE OF π. 213 I have quoted elsewhere an anecdote, which perhaps will bear repetition, that illustrates how little the usual definition of π suggests its properties. De Morgan was explaining to an actuary what was the chance that a certain proportion of some group of people would at the end of a given time be alive; and quoted the actuarial formula, involving π, which, in answer to a question, he explained stood for the ratio of the circumference of a circle to its diameter. His acquaintance, who had so far listened to the explanation with interest, interrupted him and exclaimed, "My dear friend, that must be a delusion, what can a circle have to do with the number of people alive at the end of a given time?" In reality the fact that the ratio of the length of the circumference of a circle to its diameter is the number denoted by π does not afford the best analytical definition of π, and is only one of its properties. The use of a single symbol to denote this number 3.14159 . . . seems to have been introduced about the beginning of the eighteenth century. W. Jones* in 1706 represented it by π; a few years later† John Bernoulli denoted it by c; Euler in 1734 used p, and in 1736 used c; Chr. Goldback in 1742 used π; and after the publication of Euler's Analysis the symbol π was generally employed. The numerical value of π can be determined by either of two methods with as close an approximation to the truth as is desired. The first of these methods is geometrical. It consists in calculating the perimeters of polygons inscribed in and circumscribed about a circle, and assuming that the circumference of the circle is intermediate between these perimeters‡ . The approximation would be closer if the areas and not the perimeters were employed. The second and modern method rests on the determination of converging infinite series for π. We may say that the π-calculators who used the first method regarded π as equivalent to a geometrical ratio, but those who adopted the modern method treated it as the symbol for a certain number which enters into numerous branches of mathematical analysis. It may be interesting if I add here a list of some of the approximations to the value of π given by various writers§ . This will indicate * Synopsis Palmariorum Matheseos, London, 1706, pp. 243, 263 et seq. † See notes by G. Eneström in the Bibliotheca Mathematica, Stockholm, 1889, vol. iii, p. 28; Ibid., 1890, vol. iv, p. 22. ‡ The history of this method has been written by K.E.I. Selander, Historik öfver Ludolphska Talet, Upsala, 1868. § For the methods used in classical times and the results obtained, see the notices 214 THREE GEOMETRICAL PROBLEMS. [CH. VIII incidentally those who have studied the subject to the best advantage. The ancient Egyptians* took 256/81 as the value of π, this is equal to 3.1605 . . . ; but the rougher approximation of 3 was used by the Babylonians† and by the Jews‡ . It is not unlikely that these numbers were obtained empirically. We come next to a long roll of Greek

mathematicians who attacked the problem. Whether the researches of the members of the Ionian School, the Pythagoreans, Anaxagoras, Hippias, Antipho, and Bryso led to numerical approximations for the value of π is doubtful, and their investigations need not detain us. The quadrature of certain lunes by Hippocrates of Chios is ingenious and correct, but a value of π cannot be thence deduced; and it seems likely that the later members of the Athenian School concentrated their efforts on other questions. It is probable that Euclid§ , the illustrious founder of the Alexandrian School, was aware that π was greater than 3 and less than 4, but he did not state the result explicitly. The mathematical treatment of the subject began with Archimedes, who proved that π is less than 3 1 7 and greater than 3 10 71 , that is, it lies between 3.1428 . . . and 3.1408 . . . . He established‖ this by inscribing in a circle and circumscribing about it regular polygons of 96 sides, then determining by geometry the perimeters of these polygons, and finally assuming that the circumference of the circle was intermediate between these perimeters: this leads to the result 6336/2017 1 4 < π < 14688/4673 1 2 , 1 from which he deduced the limof their authors in M. Cantor's Geschichte der Mathematik, Leipzig, vol. i, 1880. For medieval and modern approximations, see the article by A. De Morgan on the Quadrature of the Circle in vol. xix of the Penny Cyclopaedia, London, 1841; with the additions given by B. de Haan in the Verhandelingen of Amsterdam, 1858, vol. iv, p. 22: the conclusions were tabulated, corrected, and extended by Dr J.W.L. Glaisher in the Messenger of Mathematics, Cambridge, 1873, vol. ii, pp. 119–128; and Ibid., 1874, vol. iii, pp. 27–46. * Ein mathematisches Handbuch der alten Aegypter (i.e. the Rhind papyrus), by A. Eisenlohr, Leipzig, 1877, arts. 100–109, 117, 124. † Oppert, Journal Asiatique, August, 1872, and October, 1874. ‡ 1 Kings, ch. 7, ver. 23; 2 Chronicles, ch. 4, ver. 2. § These results can be deduced from Euc. iv, 15, and iv, 8: see also book xii, prop. 16. ‖ Archimedis Opera, KÔκλου μὲτρησις, prop. iii, ed. Torelli, Oxford, 1792, pp. 205– 216; ed. Heiberg, Leipzig, 1880, vol. i, pp. 263-271. 1. Inserted 14688/ CH. VIII] APPROXIMATIONS TO THE VALUE OF π. 215 its given above. This method is equivalent to using the proposition sin θ < θ < tan θ, where θ = π/96: the values of sin θ and tan θ were deduced by Archimedes from those of sin 1 3 π and tan 1 3 π by repeated bisections of the angle. With a polygon of n sides this process gives a value of π correct to at least the integral part of (2 log n−1.19) places of decimals. The result given by Archimedes is correct to 2 places of decimals. His analysis leads to the conclusion that the perimeters of these polygons for a circle whose diameter is 4970 feet would lie between 15610 feet and 15620 feet—actually it is about 15613 feet 9 inches. Apollonius discussed these results, but his criticisms have been lost. Hero of Alexandria gave* the value 3, but he quoted† the result 22/7: possibly the former number was intended only for rough approximations. The only other Greek approximation that I need mention is that given by Ptolemy‡ , who asserted that π = 3◦8 '30''. This is equivalent to taking π = 3 + 8 60 + 30

3600 = 3 17 120 = 3.1416˙ . The Roman surveyors seem to have used 3, or sometimes 4, for rough calculations. For closer approximations they often employed 3 1 8 instead of 3 1 7 , since the fractions then introduced are more convenient in duodecimal arithmetic. On the other hand Gerbert§ recommended the use of 22/7. Before coming to the medieval and modern European mathematicians it may be convenient to note the results arrived at in India and the East. Baudhayana‖ took 49/16 as the value of π. Arya-Bhata¶ , circ. 530, gave 62832/20000, which is equal to 3.1416. He showed that, if a is the side of a regular polygon of n sides inscribed in a circle of unit diameter, and if b is the side of a regular inscribed polygon of 2n sides, then b 2 = 1 2 − 1 2 (1 − a 2) 1 2 . From the side of an inscribed hexagon, he found successively the sides of polygons of 12, 24, 48, 96, 192, and 384 sides. The perimeter of the last is given as equal to √ 9.8694, from which his result was obtained by approximation. * Mensurae, ed. Hultsch, Berlin, 1864, p. 188. † Geometria, ed. Hultsch, Berlin, 1864, pp. 115, 136. ‡ Almagest, bk. vi, chap. 7; ed. Halma, vol. i, p. 421. § Œuvres de Gerbert, ed. Olleris, Clermont, 1867, p. 453. ‖ The Sulvasutras by G. Thibaut, Asiatic Society of Bengal, 1875, arts. 26–28. ¶ Leçons de calcul d'Aryabhata, by L. Rodet in the Journal Asiatique, 1879, series 7, vol. xiii, pp. 10, 21. 216 THREE GEOMETRICAL PROBLEMS. [CH. VIII Brahmagupta* , circ. 650, gave √ 10, which is equal to 3.1622 . . . . He is said to have obtained this value by inscribing in a circle of unit diameter regular polygons of 12, 24, 48, and 96 sides, and calculating successively their perimeters, which he found to be √ 9.65, √ √ 9.81, 9.86, √ 9.87 respectively; and to have assumed that as the number of sides is increased indefinitely the perimeter would approximate to √ 10. Bhaskara, circ. 1150, gave two approximations. One†—possibly copied from Arya-Bhata, but said to have been calculated afresh by Archimedes's method from the perimeters of regular polygons of 384 sides—is 3927/1250, which is equal to 3.1416: the other‡ is 754 240 , which is equal to 3.1416˙ , but it is uncertain whether this was not given only as an approximate value. Among the Arabs the values 22/7, √ 10, and 62832/20000 were given by Alkarisimi§ , circ. 830; and no doubt were derived from Indian sources. He described the first as an approximate value, the second as used by geometricians, and the third as used by astronomers. In Chinese works the values 3, 22 7 , 157 50 are said to occur: probably the last two results were copied from the Arabs. Returning to European mathematicians, we have the following successive approximations to the value of π: many of those prior to the eighteenth century having been calculated originally with the view of demonstrating the incorrectness of some alleged quadrature. Leonardo of Pisa‖ , in the thirteenth century, gave for π the value 1440/458 1 3 which is equal to 3.1418 . . . . In the fifteenth century, Purbach¶ gave or quoted the value 62832/20000, which is equal to 3.1416˙ ; Cusa believed that the accurate value was 3 4 (√ 3 + √ 6) which is equal to 3.1423 . . . ; and, in 1464, Regiomontanus** is said to have given a value equal to

3.14243. * Algebra. . . from Brahmegupta and Bhascara, trans. by H.T. Colebrooke, London, 1817, chap. xii, art. 40, p. 308. † Ibid., p. 87. ‡ Ibid., p. 95. § The Algebra of Mohammed ben Musa, ed. by F. Rosen, London, 1831, pp. 71–72. ‖ Boncompagni's Scritti di Leonardo, vol. ii (Practica Geometriae), Rome, 1862, p. 90. ¶ Appendix to the De Triangulis of Regiomontanus, Basle, 1541, p. 131. ** In his correspondence with Cardinal Cusa, De Quadratura Circuli, Nuremberg, 1533, wherein he proved that Cusa's result was wrong. I cannot quote the exact reference, but the figures are given by competent writers and I have no doubt are correct. CH. VIII] APPROXIMATIONS TO THE VALUE OF π. 217 Vieta* , in 1579, showed that π was greater than 31415926535/1010 , and less than 31415926537/1010. This was deduced from the perimeters of the inscribed and circumscribed polygons of 6 × 2 16 sides, obtained by repeated use of the formula 2 sin2 1 2 θ = 1 − cos θ. He also gave† a result equivalent to the formula 2 π = √ 2 2 √ (2 + √ 2) 2 √ {2 + √ (2 + √ 2)} 2 · · · . The father of Adrian Metius‡ , in 1585, gave 355/113, which is equal to 3.14159292 . . . , and is correct to 6 places of decimals. This was a curious and lucky guess, for all that he proved was that π was intermediate between 377/120 and 333/106, whereon he jumped to the conclusion that he should obtain the true fractional value by taking the mean of the numerators and the mean of the denominators of these fractions. In 1593 Adrian Romanus§ calculated the perimeter of the inscribed regular polygon of 1073, 741824 (i.e. 2 30) sides, from which he determined the value of π correct to 15 places of decimals. L. van Ceulen devoted no inconsiderable part of his life to the subject. In 1596‖ he gave the result to 20 places of decimals: this was calculated by finding the perimeters of the inscribed and circumscribed regular polygons of 60 × 2 33 sides, obtained by the repeated use of a theorem of his discovery equivalent to the formula 1−cos A = 2 sin2 1 2A. I possess a finely executed engraving of him of this date, with the result printed round a circle which is below his portrait. He died in 1610, and by his directions the result to 35 places of decimals (which was as far as he had then calculated it) was engraved on his tombstone¶ in St Peter's Church, Leyden. His posthumous arithmetic** contains the result to 32 places; this was obtained by calculating the perimeter of a polygon, the * Canon Mathematicus seu ad Triangula, Paris, 1579, pp. 56, 66: probably this work was printed for private circulation only, it is very rare. † Vietae Opera, ed. Schooten, Leyden, 1646, p. 400. ‡ Arithmeticae libri duo et Geometriae, by A. Metius, Leyden, 1626, pp. 88, 89. [Probably issued originally in 1611.] § Ideae Mathematicae, Antwerp, 1593: a rare work, which I have never been able to consult. ‖ Vanden Circkel, Delf, 1596, fol. 14, p. 1; or De Circulo, Leyden, 1619, p. 3. ¶ The inscription is quoted by Prof. de Haan in the Messenger of Mathematics, 1874, vol. iii, p. 25. ** De Arithmetische en Geometrische Fondamenten, Leyden, 1615, p. 163; or p. 144 of the Latin translation by W. Snell, published at Leyden in 1615 under the 218 THREE GEOMETRICAL PROBLEMS. [CH. VIII number of whose

sides is 2 62 , i.e. 4, 611686, 018427, 387904. Van Ceulen also compiled a table of the perimeters of various regular polygons. Willebrord Snell* , in 1621, obtained from a polygon of 2 30 sides an approximation to 34 places of decimals. This is less than the numbers given by van Ceulen, but Snell's method was so superior that he obtained his 34 places by the use of a polygon from which van Ceulen had obtained only 14 (or perhaps 16) places. Similarly, Snell obtained from a hexagon an approximation as correct as that for which Archimedes had required a polygon of 96 sides, while from a polygon of 96 sides he determined the value of π correct to seven decimal places instead of the two places obtained by Archimedes. The reason is that Archimedes, having calculated the lengths of the sides of inscribed and circumscribed regular polygons of n sides, assumed that the length of 1/nth of the perimeter of the circle was intermediate between them; whereas Snell constructed from the sides of these polygons two other lines which gave closer limits for the corresponding arc. His method depends on the theorem 3 sin θ/(2 + cos θ) < θ < (2 sin 1 3 θ + tan 1 3 θ), by the aid of which a polygon of n sides gives a value of π correct to at least the integral part of (4 log n − .2305) places of decimals, which is more than twice the number given by the older rule. Snell's proof of his theorem is incorrect, though the result is true. Snell also added a table† of the perimeters of all regular inscribed and circumscribed polygons, the number of whose sides is 10×2 n where n is not greater than 19 and not less than 3. Most of these were quoted from van Ceulen, but some were recalculated. This list has proved useful in refuting circle-squarers. A similar list was given by James Gregory‡ . In 1630 Grienberger§ , by the aid of Snell's theorem, carried the approximation to 39 places of decimals. He was the last mathematician who adopted the classical method of finding the perimeters of inscribed and circumscribed polygons. Closer approximations serve no useful title Fundamenta Arithmetica et Geometrica. This was reissued, together with a Latin translation of the Vanden Circkel, in 1619, under the title De Circulo; in which see pp. 3, 29–32, 92. * Cyclometricus, Leyden, 1621, p. 55. † It is quoted by Montucla, ed. 1831, p. 70. ‡ Vera Circuli et Hyperbolae Quadratura, prop. 29, quoted by Huygens, Opera Varia, Leyden, 1724, p. 447. § Elementa Trigonometrica, Rome, 1630, end of preface. CH. VIII] APPROXIMATIONS TO THE VALUE OF π. 219 purpose. Proofs of the theorems used by Snell and other calculators in applying this method were given by Huygens in a work* which may be taken as closing the history of this method. In 1656 Wallis† proved that π 2 = 2 · 2 · 4 · 4 · 6 · 6 · · · 1 · 3 · 3 · 5 · 5 · 7 · 7 · · · , and quoted a proposition given a few years earlier by Viscount Brouncker to the effect that π 4 = 1 + 1 2 2 + 3 2 2 + 5 2 2 + . . . , but neither of these theorems was used to any large extent for calculation. Subsequent calculators have relied on converging infinite series, a method that was hardly practicable prior to the invention of the calculus, though Descartes‡ had indicated a geometrical process which was equivalent to the use of such a series. The

employment of infinite series was proposed by James Gregory§ , who established the theorem that θ = tan θ − 1 3 tan3 θ + 1 5 tan5 θ − · · · , the result being true only if θ lies between − 1 4 π and 1 4 π. The first mathematician to make use of Gregory's series for obtaining an approximation to the value of π was Abraham Sharp‖ , who, in 1699, on the suggestion of Halley, determined it to 72 places of * De Circula Magnitudine Inventa, 1654; Opera Varia, pp. 351–387. The proofs are given in G. Pirie's Geometrical Methods of Approximating the Value of π, London, 1877, pp. 21–23. † Arithmetica Infinitorum, Oxford, 1656, prop. 191. An analysis of the investigation by Wallis was given by Cayley, Quarterly Journal of mathematics, 1889, vol. xxiii, pp. 165–169. ‡ See Euler's paper in the Novi Commentarii Academiae Scientiarum, St Petersburg, 1763, vol. viii, pp. 157–168. § See the letter to Collins, dated Feb. 15, 1671, printed in the Commercium Epistolicum, London, 1712, p. 25, and in the Macclesfield Collection, Correspondence of Scientific Men of the Seventeenth Century, Oxford, 1841, vol. ii, p. 216. ‖ See Life of A. Sharp by W. Cudworth, London, 1889, p. 170. Sharp's work is given in one of the preliminary discourses (p. 53 et seq.) prefixed to H. Sherwin's Mathematical Tables. The tables were issued at London in 1705: probably the discourses were issued at the same time, though the earliest copies I have seen were printed in 1717. 220 THREE GEOMETRICAL PROBLEMS. [CH. VIII decimals (71 correct). He obtained this value by putting θ = 1 6 π in Gregory's series. Machin* , earlier than 1706, gave the result to 100 places (all correct). He calculated it by the formula 1 4 π = 4 tan−1 1 5 − tan−1 1 239 . De Lagny† , in 1719, gave the result to 127 places of decimals (112 correct), calculating it by putting θ = 1 6 π in Gregory's series. Hutton‡ , in 1776, and Euler§ , in 1779, suggested the use of the formulae 1 4 π = tan−1 1 2 + tan−1 1 3 or 1 4 π = 5 tan−1 1 7 + 2 tan−1 3 79 , but neither carried the approximation as far as had been done previously. Vega, in 1789‖ , gave the value of π to 143 places of decimals (126 correct); and, in 1794¶ , to 140 places (136 correct). Towards the end of the last century Baron Zach saw in the Radcliffe Library, Oxford, a manuscript by an unknown author which gives the value of π to 154 places of decimals (152 correct). In 1841 Rutherford** calculated it to 208 places of decimals (152 correct), using the formula 1 4 π = 4 tan−1 1 5 − tan−1 1 70 + tan−1 1 99 . In 1844 Dase†† calculated it to 205 places of decimals (200 correct), using the formula 1 4 π = tan−1 1 2 + tan−1 1 5 + tan−1 1 8 . In 1847 Clausen‡‡ carried the approximation to 250 places of decimals (248 correct), calculating it independently by the formulae 1 4 π = 2 tan−1 1 3 + tan−1 1 7 and 1 4 π = 4 tan−1 1 5 − tan−1 1 239 . In 1853 Rutherford§§ carried his former approximation to 440 places of decimals (all correct), and William Shanks prolonged the approximation to 530 places. In the same year Shanks published an approximation * W. Jones's Synopsis Palmariorum, London, 1706, p. 243; and Maseres, Scriptores Logarithmici, London, 1796, vol. iii, pp. vii–ix, 155–164. † Histoire de l'Académie for 1719,

Paris, 1721, p. 144. ‡ Philosophical Transactions, 1776, vol. lxvi, pp. 476–492. § Nova Acta Academiae Scientiarum Petropolitanae for 1793, St Petersburg, 1798, vol. xi, pp. 133–149: the memoir was read in 1779. ‖ Nova Acta Academiae Scientiarum Petropolitanae for 1790, St Petersburg, 1795, vol. ix, p. 41. ¶ Thesaurus Logarithmorum (logarithmisch-trigonometrischer Tafeln), Leipzig, 1794, p. 633. ** Philosophical Transactions, 1841, p. 283. †† Crelle's Journal, 1844, vol. xxvii, p. 198. ‡‡ Schumacher, Astronomische Nachrichten, vol. xxv, col. 207. §§ Proceedings of the Royal Society, Jan. 20, 1853, vol. vi, pp. 273-275. CH. VIII] APPROXIMATIONS TO THE VALUE OF π. 221 to 607 places* : and in 1873 he carried the approximation to 707 places of decimals† . These were calculated from Machin's formula. In 1853 Richter, presumably in ignorance of what had been done in England, found the value of π to 333 places‡ of decimals (330 correct); in 1854 he carried the approximation to 400 places§ ; and in 1855 carried it to 500 places‖ . Of the series and formulae by which these approximations have been calculated, those used by Machin and Dase are perhaps the easiest to employ. Other series which converge rapidly are the following, π 6 = 1 2 + 1 2 · 1 3 · 2 3 + 1 · 3 2 · 4 · 1 5 · 2 5 + · · · , and π 4 = 2 + 22 tan−1 1 28 + tan−1 1 443 − 5 tan−1 1 1393 − 10 tan−1 1 11018 , the latter of these is due to Mr Escott¶ . As to those writers who believe that they have squared the circle their number is legion and, in most cases, their ignorance profound, but their attempts are not worth discussing here. "Only prove to me that it is impossible," said one of them, "and I will set about it immediately"; and doubtless the statement that the problem is insoluble has attracted much attention to it. Among the geometrical ways of approximating to the truth the following is one of the simplest. Inscribe in the given circle a square, and to three times the diameter of the circle add a fifth of a side of the square, the result will differ from the circumference of the circle by less than one-seventeen-thousandth part of it. An approximate value of π has been obtained experimentally by the theory of probability. On a plane a number of equidistant parallel straight lines, distance apart a, are ruled; and a stick of length l, which * Contributions to Mathematics, W. Shanks, London, 1853, pp. 86, 87. † Proceedings of the Royal Society, 1872–3, vol. xxi, p. 318; 1873–4, vol. xxii, p. 45. ‡ Grunert's Archiv, vol. xxi, p. 119. § Ibid., vol. xxiii, p. 476: the approximation given in vol. xxii, p. 473, is correct only to 330 places. ‖ Ibid., vol. xxv, p. 472; and Elbingen Anzeigen, No. 85. ¶ L'Intermédiaire des mathématiciens, Paris, Dec. 1896, vol. iii, p. 276. 222 THREE GEOMETRICAL PROBLEMS. [CH. VIII is less than a, is dropped on to the plane. The probability that it will fall so as to lie across one of the lines is 2l/πa. If the experiment is repeated many hundreds of times, the ratio of the number of favourable cases to the whole number of experiments will be very nearly equal to this fraction: hence the value of π can be found. In 1855 Mr A. Smith* of Aberdeen made 3204 trials, and deduced π = 3.1553. A pupil of Prof. De Morgan* , from 600 trials, deduced π = 3.137. In 1864 Captain

Fox† made 1120 trials with some additional precautions, and obtained as the mean value π = 3.1419. Other similar methods of approximating to the value of π have been indicated. For instance, it is known that if two numbers are written down at random, the probability that they will be prime to each other is 6/π2 . Thus, in one case‡ where each of 50 students wrote down 5 pairs of numbers at random, 154 of the pairs were found to consist of numbers prime to each other. This gives 6/π2 = 154/250, from which we get π = 3.12. * A. De Morgan, Budget of Paradoxes, London, 1872, pp. 171, 172 [quoted from an article by De Morgan published in 1861]. † Messenger of Mathematics, Cambridge, 1873, vol. ii, pp. 113, 114. ‡ Note on π by R. Chartres. Philosophical Magazine, London, series 6, vol. xxxix, March, 1904, p. 315. CHAPTER IX. MERSENNE'S NUMBERS. One of the unsolved riddles of higher arithmetic, to which I have alluded in Chapter I, is the discovery of the method by which Mersenne or his contemporaries determined values of p which make a number of the form 2 p − 1 a prime. It is convenient to describe such primes as Mersenne's Numbers. In this chapter, for shortness, I use N to denote a number of the form 2 p − 1. In a memoir in the Messenger of Mathematics in 1891 I gave a brief sketch of the history of the problem. I here repeat the facts in somewhat more detail, and add a sketch of methods used in attacking the problem. Mersenne's enunciation of the results associated with his name is in the preface to his Cogitata† . The passage is as follows: "Vbi fuerit operae pretium aduertere xxviii numeros a Petro Bungo pro perfectis exhibitos, capite xxviii, libri de Numeris, non esse omnes Perfectos, quippe 20 sunt imperfecti, adeovt [adeunt?] solos octo perfectos habeat. . . qui sunt è regione tabulae Bungi, 1, 2, 3, 4, 8, 10, 12, et 29: quique soli perfecti sunt, vt qui Bungum habuerint, errori medicinam faciant. Porrò numeri perfecti adeo rari sunt, vt vndecim dumtaxat potuerint hactenus inueniri: hoc est, alii tres a Bongianis differentes: neque enim vllus est alius perfectus ab illis octo, nisi superes exponentem numerum 62, progressionis duplae ab 1 incipientis. Nonus enim perfectus est potestas exponentis 68 minus 1. Decimus, potestas exponentis 128, minus 1. Vndecimus denique, potestas 258, minus 1, hoc est potestas 257, vnitate decurtata, multiplicata per potestatem 256. Qui vndecim alios repererit, nouerit se analysim omnem, quae fuerit hactenus, superasse: memineritque interea nullum esse perfectum à 17000 † Cogitata Physico-Mathematica, Paris, 1644, praefatio generalis, article 19. 223 224 MERSENNE'S NUMBERS. [CH. IX potestate ad 32000; & nullum potestatum interuallum tantum assignari posse, quin detur illud absque perfectis. Verbi gratia, si fuerit exponens 1050000, nullus erit numerus progressionis duplae vsque ad 2090000, qui perfectis numeris seruiat, hoc est qui minor vnitate, primus existat. Vnde clarum est quàm rari sint perfecti numeri, & quàm merito viris perfectis comparentur; esseque vnam ex maximis totius Matheseos difficultatibus, praescriptam numerorum perfectorum multitudinum exhibere; quemadmodum & agnoscere num dati numeri 15, aut 20 caracteribus

constantes, sint primi necne, cùm nequidem saeculum integrum huic examini, quocumque modo hactenus cognito, sufficiat. It is evident that, if p is not a prime, then N is composite, and two or more of its factors can be written down by inspection. Hence we may confine ourselves to prime values of p. Mersenne, in effect, asserted that the only values of p, not greater than 257, which make N a prime, are 1, 2, 3, 5, 7, 13, 17, 19, 31, 67, 127, 257: I assume that the number 67 is a misprint for 61. With this correction we have no reason to doubt the truth of the statement, but it has not been definitely established. There are 56 primes not greater than 257. The determination of the prime or composite character of N for the 9 cases when p is less than 20 presents no difficulty: in only one of them is N composite. For 2 of the remaining 47 cases (namely, when p = 23 and 37) the decomposition of N had been given by Fermat. For 9 of them (namely, when p = 29, 43, 73, 83, 131, 179, 191, 239, 251) the factors of N were given by Euler. He also proved that N was prime when p = 31. Plana gave the factors of N when p = 41. Landry and Le Lasseur discovered the factors in 10 cases (namely, when p = 47, 53, 59, 79, 97, 113, 151, 211, 223, and 233), but their analysis has not been published. Seelhoff showed that N was prime when p = 61, Cunningham gave the factors when p = 197, and Cole the factors when p = 67. Statements have been made that the composite character of N when p = 89, and its prime character when p = 127 have been proved, but the proofs have not been published or verified. Thus there are 21 values of p for which Mersenne's statement still awaits verification. These are 71, 89, 101, 103, 107, 109, 127, 137, 139, 149, 157, 163, 167, 173, 181, 193, 199, 227, 229, 241, 257. For these values N is (according to Mersenne) prime when p = 127, and 257, and is composite for the other values, but as explained above it is probable that the character of N is known when p = 89 and 127. To put the matter in another way. According to Mersenne's statement (corrected by the substitution of 61 for 67), 44 of the 56 primes CH. IX] MERSENNE'S NUMBERS. 225 less than 258 make N composite and the remaining 12 primes make N prime. In 25 out of the 44 cases in which N is said to be composite we know its factors, and in 19 cases the statement is still unverified. In 10 out of the 12 cases in which he said that N was prime his statement has been verified, and in 2 cases it is still unverified. From the wording of the last clause in the above quotation it has been conjectured that the result had been communicated to Mersenne, and that he published it without being aware of how it was proved. In itself this seems probable. He was a good mathematician, but not an exceptional genius. It would be strange if he established a proposition which has baffled Euler, Lagrange, Legendre, Gauss, Jacobi, and other mathematicians of the first rank; but if the proposition is due to Fermat, with whom Mersenne was in constant correspondence, the case is altered, and not only is the absence of a demonstration explained, but we cannot be sure that we have attacked the problem on the best lines. The known results as to the

prime or composite character of N, and in the latter case its smallest factor, are given in the table on the following page. The cases that remain as yet unverified are marked with an asterisk. Before describing the methods used for attacking the problem it will be convenient to state in more detail when and by whom these results were established. The factors (if any) of such values of N as are less than a million can be verified easily: they have been known for a long time, and I need not allude to them in detail. The factors of N when p = 11, 23, and 37 had been indicated by Fermat* , some four years prior to the publication of Mersenne's work, in a letter dated October 18, 1640. The passage is as follows: En la progression double, si d'un nombre quarré, généralement parlant, vous ôtez 2 ou 8 ou 32 &c., les nombres premiers moindres de l'unite qu'un multiple du quaternaire, qui mesureront le reste, feront l'effet requis. Comme de 25, qui est un quarré, ôtez 2; le reste 23 mesurera la 11e puissance −1; ôtez 2 de 49, le reste 47 mesurera la 23e puissance −1. Ôtez 2 de 225, le reste 223 mesurera la 37e puissance −1, &c. The factors of N when p = 29, 43, and 73 were given by Euler† * Oeuvres de Fermat, Paris, vol. ii, 1894, p. 210; or Opera Mathematica, Toulouse, 1679, p. 164; or Brassinne's Précis, Paris, 1853, p. 144. † Commentarii Academiae Scientiarum Petropolitanae, 1738, vol. vi, p. 103; or Commentationes Arithmeticae Collectae, vol. i, p. 2. 226 MERSENNE'S NUMBERS. [CH. IX p Value of N = 2p − 1 1 1 prime 2 3 prime 3 7 prime 5 31 prime 7 127 prime 11 2047 = 23 × 89 composite 13 8191 prime 17 131071 prime 19 524287 prime 23 8388607 = 47 × 178481 composite Fermat 29 536870911 = 233 × 1103 × 2089 composite Euler 31 2147483647 prime Euler 37 137438953471 = 223 × 616318177 composite Fermat 41 2199023255551 = 13367 × 164511353 composite Plana 43 8796093022207 = 431 × 9719 × 2099863 composite Euler 47 2351 × 4513 × 13264529 composite Landry 53 6361 × 69431 × 20394401 composite Landry 59 179951 × 3203431780337 composite Landry 61 2305843009213693951 prime Seelhoff 67 ≡ 0 (193707721) composite Cole 71 2361183241434822606847 ∗ 73 ≡ 0 (439) composite Euler 79 ≡ 0 (2687) composite Le Lasseur 83 ≡ 0 (167) composite Euler 89 618970019642690137449562111 ∗ 97 ≡ 0 (11447) composite Le Lasseur 101 2535301200456458802993406410751 ∗ 103 1014120480182583521197362564300 7 ∗ 107 162259276829213363391578010288127 ∗ 109 649037107316853453566312041152511 ∗ 113 ≡ 0 (3391) composite Le Lasseur 127 170141183460469231731687303715884105727 ∗ 131 ≡ 0 (263) composite Euler 137 . . . . . ∗ 139 . . . . . ∗ 149 . . . . . ∗ 151 ≡ 0 (18121) composite Le Lasseur 157 . . . . . ∗ 163 . . . . . ∗ 167 . . . . . ∗ CH. IX] MERSENNE'S NUMBERS. 227 p Value of N = 2p − 1 173 . . . . . ∗ 179 ≡ 0 (359) composite Euler 181 . . . . . ∗ 191 ≡ 0 (383) composite Euler

193 . . . . . ∗ 197 ≡ 0 (7487) composite Cunningham 199 . . . . . ∗ 211 ≡ 0 (15193) composite Le Lasseur 223 ≡ 0 (18287) composite Le Lasseur 227 . . . . . ∗ 229 . . . . . ∗ 233 ≡ 0 (1399) composite Le Lasseur 239 ≡ 0 (479) composite Euler 241 . . . . . ∗ 251 ≡ 0 (503) composite Euler 257 . . . . . ∗ in 1732. The fact that N is composite for the values p = 83, 131, 179, 191, 239, and 251 follows from a proposition enunciated, at the same time, by Euler to the effect that, if 4n + 3 and 8n + 7 are primes, then 2 4n+3 − 1 ≡ 0 (mod 8n + 7). This was proved by Lagrange* in his classical memoir of 1775. The proposition also covers the cases of p = 11 and p = 23. This is the only general theorem on the subject which is yet established. The fact that N is prime when p = 31 was proved by Euler† in 1771. Fermat had asserted, in the letter mentioned above, that the only possible prime factors of 2 p ± 1, when p was prime, were of the form np + 1, where n is an integer. This was proved by Euler‡ in 1748, who added that, since 2 p ± 1 is odd, every factor of it must be odd, and therefore if p is odd n must be even. But if p is a given number we can define n much more closely, and Euler showed that the prime factors (if any) of 2 31 − 1 were necessarily primes of the form 248n + 1 or 248n+ 63; also they must be less than √ 2 31 − 1, that is, than 46339. * Nouveaux Mémoires de l'Académie des Sciences de Berlin, 1775, pp. 323–356. † Histoire de l'Académie des Sciences for 1772, Berlin, 1774, p. 36. See also Legendre, Théorie des Nombres, third edition, Paris, 1830, vol. i, pp. 222–229. ‡ Novi Commentarii Academiae Scientiarum Petropolitanae, vol. i, p. 20; or Commentationes Arithmeticae Collectae, St Petersburg, 1849, vol. i, pp. 55, 56. 228 MERSENNE'S NUMBERS. [CH. IX Hence it is necessary to try only forty divisors to see if 2 31 − 1 is a prime or composite. The factors of N when p = 41 were given by Plana* in 1859. He showed that the prime factors (if any) are primes of the form 328n+1 or 328n+247, and lie between 1231 and √ 2 41 − 1, that is, 1048573. Hence it is necessary to try only 513 divisors to see if 2 41 − 1 is composite: the seventeenth of these divisors gives the required factors. This is the same method of attacking the problem which was used by Euler in 1771, but it would be very laborious to employ it for values of p greater than 41. Plana† added the forms of the prime divisors of N, if p is not greater than 101. That N is prime when p = 127 seems to have been verified by Lucas‡ in 1876 and 1877. The demonstration has not been published. The discovery of the factors of N for the values p = 47, 53, and 59 is due apparently to the late F. Landry, who established theorems on the factors (if any) of numbers of certain forms. Instead of publishing his results he issued a challenge to all mathematicians to solve the general problem. This is contained in a rare pamphlet published at Paris in 1867, of which I possess a copy, in which the factors of certain numbers are given, and on page 8 of which it is implied that he had obtained

the factors of 2 p − 1 when p = 47, 53, and 59. He seems to have communicated his results to Lucas, who quoted them in the memoir cited below§ . The factors of N when p = 79 and 113 were given first by Le Lasseur, and were quoted by Lucas in the same memoir§ . A factor of N when p = 233 was discovered later by Le Lasseur, and was quoted by Lucas in 1882‖ . The factors of N when p = 97, 151, 211, and 223 were determined subsequently by Le Lasseur, and were quoted by Lucas¶ in 1883. * G.A.A. Plana, Memorie della Reale Accademia delle Scienze di Torino, Series 2, vol. xx, 1863, p. 130. † Ibid., p. 137. ‡ Sur la Théorie des Nombres Premiers, Turin, 1876, p. 11; and Recherches sur les Ouvrages de Léonard de Pise, Rome, 1877, p. 26, quoted by Lieut.-Colonel A.J.C. Cunningham, Proceedings of the London Mathematical Society, Nov. 14, 1895, vol. xxvii, p. 54. § American Journal of Mathematics, 1878, vol. i, p. 236. ‖ Récréations, 1882–3, vol. i, p. 241. ¶ Ibid., vol. ii, p. 230. CH. IX] MERSENNE'S NUMBERS. 229 That N is prime when p = 61 had been conjectured by Landry and in 1886 a demonstration was offered by Seelhoff* . His demonstration is open to criticism, but the fact has been verified by others† , and may be accepted as proved. That N is composite when p = 89 seems to have been verified by Lucas‡ in 1891, but the demonstration has not been published, nor have the actual factors been discovered. That 7487 is a factor of N when p = 197 was shown by A.J.C. Cunningham in 1895§ . That N is not prime when p = 67 seems to have been verified by Lucas‖ in 1876 and 1877. The composite nature of1 N = 2p − 1 when p = 67 was confirmed by E. Fauquembergue¶ , and was also implied by Lucas** in 1891. The factors were given by F.N. Cole†† in 1903. Bickmore in the memoir‡‡ cited below showed that 1433 is another factor of N if p = 179; and that 1913 and 5737 are other factors of N if p = 239. I turn next to consider the methods by which these results can be obtained. It is impossible to believe that the statement made by Mersenne rested on an empirical conjecture, but the riddle as to how it was discovered is still, after nearly 250 years, unsolved. I cannot offer any solution of the riddle. But it may be interesting to indicate some ways which have been used in attacking the problem. * P.H.H. Seelhoff, Zeitschrift für Mathematik und Physik, 1886, vol. xxxi, p. 178. † See Weber-Wellstein, Encyclopaedie der Elementar-Mathematik, p. 48; and F.N. Cole, Bulletin of the American Mathematical Society, December, 1903, p. 136. ‡ Théorie des Nombres, Paris, 1891, p. 376. § Proceedings of the London Mathematical Society, March 14, 1895, vol. xxvi, p. 261. ‖ Sur la Théorie des Nombres Premiers, Turin, 1876, p. 11, quoted by LieutColonel A.J.C. Cunningham, Proceedings of the London Mathematical Society, Nov. 14, 1895, vol. xxvii, p. 54, and Recherches sur les Ouvrages de Léonard de Pise, Rome, 1877, p. 26. ¶ L'Intermédiaire des mathématiciens, Paris, Sept. 1894, vol. i, p. 148. ** Théorie des Nombres, Paris, 1891, p. 376. †† On the Factoring of Large Numbers, Bulletin of the American Mathematical Society, December, 1903, pp. 134–137. ‡‡ C.E. Bickmore, Messenger of Mathematics, Cambridge, 1895, vol. xxv, p. 19. 1. Corrected:

originally N 2 p = 1 230 MERSENNE'S NUMBERS. [CH. IX The object is to find a prime divisor q (other than N and 1) of a number N when N is of the form 2 p−1 and p is a prime. It can be easily shown that q must be of the form 2pt + 1. Also q must be of one of the forms 8i ± 1: for N is of the form 2A2 − B2 , where A is even and B odd, hence* any factor of it must be of the form 2a 2 −b 2 , that is, of the form 8i±1, and 2 must be a quadratic residue of q. The theory of residues is, however, of but little use in finding factors of the cases that still await solution, though the possibility some day of finding a complete series of solutions by properties of residues must not be neglected† . Our present knowledge of the means of factorizing N has been summed up in the statement‡ that a prime factor of the form 2pt+1 can be found directly by rules due to Legendre, Gauss, and Jacobi, when t = 1, 3, 4, 8, or 12; and that a factor of the form 2ptt' + 1 can be found indirectly by a method due to Bickmore when t = 1, 3, 4, 8, or 12, and t ' is an odd integer greater than 3. But this only indicates how little has yet been done towards finding a general solution of the problem. First. There is the simple but crude method of trying all possible prime divisors q which are of the form 2pt + 1 as well as of one of the forms 8i ± 1. The chief known results for the smaller factors may be summarized by saying that a prime of this form will divide N when t = 1, if p = 11, 23, 83, 131, 179, 191, 239, or 251; when t = 3, if p = 37, 73, or 233; when t = 5, if p = 43; when t = 15, if p = 113; when t = 17, if p = 79; when t = 19, if p = 29, or 197; when t = 25, if p = 47; when t = 41, if p = 223; when t = 59, if p = 97; when t = 163, if p = 41; when t = 1525, if p = 59; when t = 4, if p = 11, 29, 179, or 239; when t = 8, if p = 11; when t = 12, if p = 239; when t = 36, if p = 29, or 211; when t = 60, if p = 53, or 151; and when t = 1445580, if p = 67. Of the 25 cases in which we know that Mersenne's statement of the composite character of N is correct all save 3 can be easily verified by trial in this way. For neglecting all values of t not exceeding, say, * Legendre, Théorie des Nombres, third edition, Paris, 1830, vol. i, § 143. In the case of Mersenne's numbers, B = b = 1. † For methods of finding the residue indices of 2 see Bickmore, Messenger of Mathematics, May, 1895, vol. xxv, pp. 15–21; see also Lieut-Colonel A.J.C. Cunningham on 2 as a 16-ic residue, Proceedings of the London Mathematical Society, 1895–6, vol. xxvii, pp. 85–122. ‡ Transactions of the British Association for the Advancement of Science (Ipswich Meeting), 1895, p. 614. CH. IX] MERSENNE'S NUMBERS. 231 60 which make q either composite or not of one of the forms 8i ± 1 we have in each case only some 20 or so divisors to try. Of the 3 other cases in which Mersenne's statement of the composite character of N has been verified, one verification (p = 41) is due to Plana, who frankly confessed that the result was reached "par un heureux hasard"; a second is due to Landry (p = 59), who did not explain how he obtained the factors; and the third is due to Cole (p = 67), who established it by the use of quadratic residues of N, involving laborious numerical work. Of the 10 cases in which we know that Mersenne's statement of the prime character of N is correct all save one

may be verified by trial in this way, for the number of possible factors is not large. The exception is the case where p equals 61, which Seelhoff and others have shown to be prime. Thus practically we may say that simple empirical trials would at once lead us to all the conclusions known except in the case of p = 41 due to Plana, of p = 59 due to Landry, of p = 61 due to Seelhoff, and of p = 67 due to Cole. In fact, save for these four results the conclusions of all mathematicians to date could be obtained by anyone by a few hours' arithmetical work. As p increases the number of factors to be tried increases so fast that, if p is large, it would be practically impossible to apply the test to obtain large factors. This is an important point, for it has been asserted that in the cases still awaiting verification there are no factors less than 50, 000. Hence, we may take it as reasonably certain that this cannot have been the method by which the result was originally obtained; nor, as here enunciated, is it likely to give many factors not yet known. Of course it is possible there may be ways by which the number of possible values of t might be further limited, and if we could find them we might thus diminish the number of possible factors to be tried, but it will be observed that the values of N which still await verification are very large, for instance, when p = 257, N contains no less than 78 digits. It is hardly necessary to add that if q is known and is not very large we can determine whether or not it is a factor of N without the labour of performing the division. For instance, if we want to verify that q = 13367 is a factor of N when p = 41, we proceed thus. Take the power of 2 nearest to q or to 232 MERSENNE'S NUMBERS. [CH. IX its square-root. We have to the modulus q 2 14 = 16384 ≡ 3017 ≡ 7 × 431 , ∴ 2 28 ≡ 49(−1377) ≡ −638 , ∴ 2 27 ≡ −319 , ∴ 2 14+27 ≡ (3017)(−319) ≡ 1 , ∴ 2 41 ≡ 1 . Second. We can proceed by reducing the problem to the solution of an indeterminate equation. It is clear that we can obtain a factor of N if we can express it as the difference of the squares, or more generally of the nth powers, of two integers u and v. Further, if we can express a multiple of N, say mN, in this form, we can find a factor of mN and (with certain obvious limitations as to the value of m) this will lead to a factor of N. It may be also added that if m can be found so that N/m is expressible as a continued fraction of a certain form, a certain continuant* defined by the form of the continued fraction is a factor of N. Since N can always be expressed as the difference of two squares, this method seems a natural one by which to attack the problem. If we put N = n 2 + a = (n + b) 2 − (b 2 + 2bn − a), we can make use of the known forms of u and v, and thus obtain an indeterminate equation between two variables x and y of the form x 2 = (2py + H) 2 − 4(K − y) where H and K are numbers which can be easily calculated. Integral values of x and y where y < K will determine values of u and v, and thus give factors of N. We can also attack the problem by indeterminate equations in an- * See J.G. Birch in the Messenger of Mathematics, August, 1902, vol. xxii, pp. 52– 55. CH. IX] MERSENNE'S NUMBERS. 233 other way. For the factors must be of the form 2pt+1 and 8ps+1, hence (2pt + 1)(8ps + 1) = N , = 2p − 1 ,

= 2(2p−1 − 1) + 1 , ∴ 4s + t + 8pst = (2p−1 − 1)/p , = (say)α + 8pβ . Hence 4s + t = α + 8px, and st = β − x , where x ≯ β and t is odd. These results again lead to an indeterminate equation. But, in both cases, unless p is small, the resulting equations are intractable. Third. A not uncommon method of attacking problems such as this, dealing with the factorization of large numbers, is through the theory of quadratic forms* . At best this is a difficult method to use, and we have no reason to think that it would have been employed by a mathematician of the seventeenth century. I here content myself with alluding to it. Fourth. There is yet another way in which the problem might be attacked. The problem will be solved if we can find an odd prime q so that to it as modulus 2 p+y ≡ z, and 2 y ≡ z, where y and z may have any values we like to choose. If such values of q, y, and z can be found, we have 2 y (2p − 1) ≡ 0. Therefore 2 p = 1, that is, q is a divisor of N. For example, to the modulus 23, we have 2 8 ≡ 3 , 2 16 ≡ 3 2 . Also 2 5 ≡ 3 2 . Therefore 2 16 − 2 5 ≡ 0 , ∴ 2 11 − 1 ≡ 0 . Without going further into the matter we may say that the à priori determination of the values q, y, and z introduces us to an almost * For a sketch of this see G.B. Mathews, Theory of Numbers, part 1, Cambridge, 1891, pp. 261-271. See also F.N. Cole's paper, On the Factoring of Large Numbers, Bulletin of the American Mathematical Society, December, 1903, pp. 134-137; and Quadratic Partitions by A.J.C. Cunningham, London, 1904. 234 MERSENNE'S NUMBERS. [CH. IX untrodden field. It is just possible (though I should suppose unlikely) that the key to the riddle is to be found on methods of finding q, y, z, to satisfy the above conditions. For instance, if we could say what was the remainder when 2 x was divided by a prime q of the form 2pt + 1, and if the remainders were the same when x = u and x = v, then to the modulus q we should have, 2 u ≡ 2 v , and therefore 2 u−v ≡ 1. It should however be noted that Jacobi's Canon Arithmeticus and the similar canon drawn up by Cunningham would, if carried far enough, enable us to solve the problem by this method. Cunningham's Canon gives the solution of the congruence 2 x ≡ R for all prime moduli less than 1000, but it is of no use in determining factors of N larger than 1000. It is however possible that if R or q have certain forms such a canon might be constructed, and thus lead to a solution of the problem. Fifth. It is noteworthy that the odd values of p specified by Mersenne are primes of one of the four forms 2 q ± 1 or 2 q ± 3, but it is not the case that all primes of these forms make N a prime, for instance, N is composite if p = 23 + 3 = 11 or if p = 25 − 3 = 29. This fact has suggested to more than one mathematician the possibility that some test as to the prime or composite character of N when p is of one of these forms may be discoverable. Of course this is merely a conjecture. There is however this to say for it, that we know that Fermat* had paid attention to numbers of this form. Sixth. The number N when expressed in the binary scale, consists of 1 repeated p times. This has suggested whether the work connected with the determination of factors of N might not with advantage be expressed in the binary scale. A method based on the use of

properties of this scale has been indicated by G. de Longchamps† , but as there given it would be unlikely to lead to the discovery of large divisors. I am, however, inclined to think that greater advantages would be gained by working in a scale whose radix was 4p or may-be 8p—the resulting numbers being then expressed by a reasonably small number of digits. In fact when expressed in the latter scale in only one out of the 25 cases in which the factors of N are known does the smallest factor contain more than two digits. * Ex. gr., see above, page 31. † Comptes rendus de l'Académie des Sciences, Paris, Nov. 1877, vol. lxxxv, pp. 950–952. CH. IX] MERSENNE'S NUMBERS. 235 Seventh. I have reserved to the last the description of the method which seems to me to be the most hopeful. We know by Fermat's Theorem that if x + 1 is a prime then 2 x − 1 is divisible by x + 1. Hence if 2pt + 1 is a prime we have, to the modulus 2pt + 1 2 2pt − 1 ≡ 0 , ∴ (2p − 1)(1 + 2p + 22p + · · · + 2(2t−1)p) ≡ 0 . Hence, a divisor of 2 p −1 will be known, if we can find a value of t such that 2pt + 1 is prime and the second factor is prime to it. This method may be used to establish Euler's theorem of 1732. For if we put t = 1, and if 2p+ 1 is a prime, we have, to the modulus 2p+ 1 (2p − 1)(2p + 1) ≡ 0 . Hence 2 p ≡ 1 if 2 p + 1 is prime to 2p+ 1. This is the case if p = 4m+ 3. Hence 2p + 1 is a factor of N if p = 11, 23, 83, 131, 179, 191, 239, and 251, for in these cases 2p + 1 is prime. The problem of Mersenne's Numbers is a particular case of the determination of the factors of a n −1. This has been the subject of investigations by many mathematicians: an outline of their conclusions has been given by Bickmore* . I ought also to add a reference to the general method suggested by F.W. Lawrence† for the factorization of any high number: it is possible that Fermat used some method analogous to this. Finally, I should add that machines‡ have been devised for investigating whether a number is prime, but I do not know that any have been constructed suitable for numbers as large as those involved in the numbers in question. * Messenger of Mathematics, Cambridge, 1895–6, vol. xxv, pp. 1–44; also 1896–7, vol. xxvi, pp. 1–38; see also a note by Mr E.B. Escott in the Messenger, 1903–4, vol. xxxiii, p. 49. † Ibid., 1894–5, vol. xxiv, pp. 100–109; Quarterly Journal of Mathematics, 1896, vol. xxviii, pp. 285–311; and Transactions of the London Mathematical Society, May 13, 1897, vol. xxviii, pp. 465–475. ‡ F.W. Lawrence, Quarterly Journal of Mathematics, 1896, already quoted, pp. 310–311; see also C.A. Laisant, Comptes Rendus Association Français pour l'avancement des sciences, 1891 (Marseilles), vol. xx, pp. 165–8. CHAPTER X. ASTROLOGY. Astrologers professed to be able to foretell the future, and within certain limits to control it. I propose to give in this chapter a concise account of the rules they used for this purpose† . I have not attempted to discuss the astrology of periods earlier than the middle ages, for the technical laws of the ancient astrology are not known with accuracy. At the same time there is no doubt that, as far back as we have any definite historical information, the art was practised in the East; that thence it was transplanted to

Egypt, Greece, and Rome; and that the medieval astrology was founded on it. It is probable that the rules did not differ materially from those described in this chapter‡ , and it may be added that the more intelligent thinkers of the old world recognised that the art had no valid pretences to accuracy. I may note also that the history of the development of the art ceases with the general acceptance of the Copernican theory, after which the practice of astrology rapidly became a mere cloak for imposture. † I have relied mainly on the Manual of Astrology by Raphael—whose real name was R.C. Smith—London, 1828, to which the references to Raphael hereafter given apply; and on Cardan's writings, especially his commentary on Ptolemy's work and his Geniturarum Exempla. I am indebted also for various references and gossip to Whewell's History of the Inductive Sciences; to various works by Raphael, published in London between 1825 and 1832; and to a pamphlet by M. Uhlemann, entitled Grundzüge der Astronomie und Astrologie, Leipzig, 1857. ‡ On the influences attributed to the planets, see The Dialogue of Bardesan on Fate, translated by W. Cureton in the Spicilegium Syriacum, London, 1855. 236 CH. X] ASTROLOGY. 237 All the rules of the medieval astrology—to which I confine myself— are based on the Ptolemaic astronomy, and originate in the Tetrabiblos * which is said, it may be falsely, to have been written by Ptolemy himself. The art was developed by numerous subsequent writers, especially by Albohazen† , and Firmicus. The last of these collected the works of most of his predecessors in a volume‡ , which remained a standard authority until the close of the sixteenth century. I may begin by reminding the reader that though there was a fairly general agreement as to the methods of procedure and interpretation— which alone I attempt to describe—yet there was no such thing as a fixed code of rules or a standard text-book. It is therefore difficult to reduce the rules to any precise and definite form, and almost impossible, within the limits of a chapter, to give detailed references. At the same time the practice of the elements of the art was tolerably well established and uniform, and I feel no doubt that my account, as far as it goes, is substantially correct. There were two distinct problems with which astrologers concerned themselves. One was the determination in general outline of the life and fortunes of an enquirer: this was known as natal astrology, and was effected by the erection of a scheme of nativity. The other was the means of answering any specific question about the individual: this was known as horary astrology. Both depended on the casting or erecting of a horoscope. The person for whom it was erected was known as the native. A horoscope was cast according to the following rules§ . The space between two concentric and similarly situated squares was divided into twelve spaces, as shown in the annexed diagram. These twelve spaces were known technically as houses; they were numbered consecutively 1, 2, . . . , 12 (see figure); and were described as the first house, the second house, and so on. The dividing lines were termed cusps: the line between the houses 12 and 1 was

called the cusp of the first house, the line between the houses 1 and 2 was called the cusp of the second house, and so on, finally the line between the houses 11 and 12 was called the cusp of the twelfth house. Each house had also a name of its * There is an English translation by J. Wilson, London [n.d.]; and a French translation is given in Halma's edition of Ptolemy's works. † De judiciis astrorum, ed. Liechtenstein, Basle, 1571. ‡ Astronomicorum, eight books, Venice, 1499. § Raphael, pp. 91–109. 238 ASTROLOGY. [CH. X 3 4 5 2 1 12 11 10 9 6 7 8 own—thus the first house was called the ascendant house, the eighth house was called the house of death, and so on—but as these names are immaterial for my purpose I shall not define them. Next, the positions which the various astrological signs and planets had occupied at some definite time and place (for instance, the time and place of birth of the native, if his nativity was being cast) were marked on the celestial sphere. This sphere was divided into twelve equal spaces by great circles drawn through the zenith, the angle between any two consecutive circles being 30◦ . The first circle was drawn through the East point, and the space between it and the next circle towards the North corresponded to the first house, and sometimes was called the first house. The next space, proceeding from East to North, corresponded to the second house, and so on. Each of the twelve spaces between these circles corresponded to one of the twelve houses, and each of the circles to one of the cusps. In delineating* a horoscope, it was usual to begin by inserting the zodiacal signs. A zodiacal sign extends over 30◦ , and was marked on the cusp which passed through it: by its side was written a number indicating the distance to which its influence extended in the earlier of the two houses divided by the cusp. Next the position of the planets in these signs were calculated, and each planet was marked in its proper * Raphael, pp. 118–131. CH. X] ASTROLOGY. 239 house and near the cusp belonging to the zodiacal sign in which the planet was then situated: it was followed by a number indicating its right ascension measured from the beginning of the sign. The name of the native and the date for which the horoscope was cast were inserted usually in the central square. The diagram near the end of this chapter is a facsimile of the horoscope of Edward VI as cast by Cardan and will serve as an illustration of the above remarks. We are now in a position to explain how a horoscope was read or interpreted. Each house was associated with certain definite questions and subjects, and the presence or absence in that house of the various signs and planets gave the answer to these questions or information on these subjects. These questions cover nearly every point on which information would be likely to be sought. They may be classified roughly as follows. For the answer, so far as it concerns the native, to all questions connected with his life and health, look in house 1; for questions connected with his wealth, refer to house 2; for his kindred and communications to him, refer to 3; for his parents and inheritances, refer to 4; for his children and amusements, refer to 5; for his servants and illnesses, refer to 6; for his

marriage and amours, refer to 7; for his death, refer to 8; for his learning, religion and travels, refer to 9; for his trade and reputation, refer to 10; for his friends, refer to 11; and finally for questions connected with his enemies, refer to house 12. I proceed to describe briefly the influences of the planets, and shall then mention those of the zodiacal signs; I should note however that in practice the signs were in many respects more influential than the planets. The astrological “planets” were seven in number, and included the Sun and the Moon. They were Saturn or the Great Infortune, Jupiter or the Great Fortune, Mars or the Lesser Infortune, the Sun, Venus or the Lesser Fortune, Mercury, and the Moon: the above order being that of their apparent times of rotation round the earth. Each of them had a double signification. In the first place it impressed certain characteristics, such as good fortune, feebleness, &c., on the dealings of the native with the subjects connected with the house in which it was located; and in the second place it imported certain objects into the house which would affect the dealings of the native with the subjects of that house. 240 ASTROLOGY. [CH. X To describe the exact influence of each planet in each house would involve a long explanation, but the general effect of their presence may be indicated roughly as follows* . The presence of Saturn is malignant: that of Jupiter is propitious: that of Mars is on the whole injurious: that of the Sun indicates respectability and moderate success: that of Venus is rather favourable: that of Mercury implies rapid practical action: and lastly the presence of the Moon merely faintly reflects the influence of the planet nearest her, and suggests rapid changes and fickleness. Besides the planets, the Moon’s nodes and some of the more prominent fixed stars† also had certain influences. These vague terms may be illustrated by taking a few simple cases. For example, in casting a nativity, the life, health, and general career of the native were determined by the first or ascendant house, whence comes the expression that a man’s fortune is in the ascendant. Now the most favourable planet was Jupiter. Therefore, if at the instant of birth Jupiter was in the first house, the native might expect a long, happy, healthy life; and being born under Jupiter he would have a “jovial” disposition. On the other hand, Saturn was the most unlucky of all the planets, and was as potent as malignant. If at the instant of birth he was in the first house, his potency might give the native a long life, but it would be associated with an angry and unhappy temper, a spirit covetous, revengeful, stern, and unloveable, though constant in friendship no less than in hate, which was what astrologers meant by a “saturnine” character. Similarly a native born under Mercury, that is, with Mercury in the first house, would be of a mercurial nature, while anyone born under Mars would have a martial bent. Moreover it was the prevalent opinion that a jovial person would have his horoscope affected by Jupiter, even if that planet had not been in the ascendant at the time of birth. Thus the horoscope of an adult depended to some extent on his character and previous life. It is hardly necessary to point out how easily this

doctrine enabled an astrologer to make the prediction of the heavens agree with facts that were known or probable. In the same way the other houses are affected. For instance, no astrologer, who believed in the art, would have wished to start on a long journey when Saturn was in the ninth house or house of travels; * Raphael, pp. 70–90; pp. 204–209. † Raphael, pp. 129–131, CH. X] ASTROLOGY. 241 and, if at the instant of birth Saturn was in that house, the native always would incur considerable risk on his journeys. Moreover every planet was affected to some extent by its aspect (conjunction, opposition, or quadrature) to every other planet according to elaborate rules* which depended on their positions and directions of motion: in particular the angular distance between the Sun and the Moon—sometimes known as the "part of fortune"—was regarded as specially important, and this distance affected the whole horoscope. In general, conjunction was favourable, quadrature unfavourable, and opposition ambiguous. Each planet not only influenced the subjects in the house in which it was situated, but also imported certain objects into the house. Thus Saturn was associated with grandparents, paupers, beggars, labourers, sextons, and gravediggers. If, for example, he was present in the fourth house, the native might look for a legacy from some such person; if he was present in the twelfth house, the native must be careful of the consequences of the enmity of any such person; and so on. Similarly Jupiter was associated generally with lawyers, priests, scholars, and clothiers; but, if he was conjoined with a malignant planet, he represented knaves, cheats, and drunkards. Mars indicated soldiers (or, if in a watery sign, sailors on ships of war), masons, doctors, smiths, carpenters, cooks, and tailors; but, if afflicted with Mercury or the Moon, he denoted the presence of thieves. The Sun implied the action of kings, goldsmiths, and coiners; but, if afflicted by a malignant planet, he denoted false pretenders. Venus imported musicians, embroiderers, and purveyors of all luxuries; but, if afflicted, prostitutes and bullies. Mercury imported astrologers, philosophers, mathematicians, statesmen, merchants, travellers, men of intellect, and cultured workmen; but, if afflicted, he signified the presence of pettifoggers, attorneys, thieves, messengers, footmen, and servants. Lastly, the presence of the Moon introduced sailors and those engaged in inferior offices. I come now to the influence and position of the zodiacal signs. So far as the first house was concerned, the sign of the zodiac which was there present was even more important than the planet or planets, for it was one of the most important indications of the durations of life. Each sign was connected with certain parts of the body—ex. gr. Aries influenced the head, neck and shoulders—and that part of the * Raphael, pp. 132–170. 242 ASTROLOGY. [CH. X body was affected according to the house in which the sign was. Further each sign was associated with certain countries and connected the subjects of the house in which the sign was situated with those countries: ex. gr. Aries was associated especially with events in England, France, Syria, Verona, Naples, &c. The sign

in the first house determined also the character and appearance of the native* . Thus the character of a native born under Aries (m) was passionate; under Taurus (f) was dull and cruel; under Gemini (m) was active and ingenious; under Cancer (f) was weak and yielding; under Leo (m) was generous, resolute, and ambitious; under Virgo (f) was sordid and mean; under Libra (m) was amorous and pleasant; under Scorpio (f) was cold and reserved; under Sagittarius (m) was generous, active, and jolly; under Capricorn (f) was weak and narrow; under Aquarius (m) was honest and steady; and under Pisces (f) was phlegmatic and effeminate. Moreover the signs were regarded as alternately masculine and feminine, as indicated above by the letters m or f placed after each sign. A masculine sign is fortunate, and all planets situated in the same house have their good influence rendered thereby more potent and their unfavourable influence mitigated. But all feminine signs are unfortunate, their direct effect is evil, and they tend to nullify all the good influence of any planet which they afflict (i.e. with which they are connected), and to increase all its evil influences, while they also import an element of fickleness into the house and often turn good influences into malignant ones. The precise effect of each sign was different on every planet. I think the above account is sufficient to enable the reader to form a general idea of the manner in which a horoscope was cast and interpreted, and I do not propose to enter into further details. This is the less necessary as the rules—especially as to the relative importance to be assigned to various planets when their influence was conflicting—were so vague that astrologers had little difficulty in finding in the horoscope of a client any fact about his life of which they had information or any trait of character which they suspected him to possess. That this vagueness was utilized by quacks is notorious, but no doubt many an astrologer in all honesty availed himself of it, whether consciously or unconsciously. It must be remembered also that the rules were laid down at a time when men were unacquainted with any exact * Raphael, pp. 61–69. CH. X] ASTROLOGY. 243 science, with the possible exception of mathematics, and further that, if astrology had been reduced to a series of inelastic rules applicable to all horoscopes, the number of failures to predict the future correctly would have rapidly led to a recognition of the folly of the art. As it was, the failures were frequent and conspicuous enough to shake the faith of most thoughtful men. Moreover it was a matter of common remark that astrologers showed no greater foresight in meeting the difficulties of life than their neighbours, while they were neither richer, wiser, nor happier for their supposed knowledge. But though such observations were justified by reason they were often forgotten in times of difficulty and danger. A prediction of the future and the promise of definite advice as to the best course of action, revealed by the heavenly bodies themselves, appealed to the strongest desires of all men, and it was with reluctance that the futility of the advice was gradually recognized. The objections to the scheme

had been stated clearly by several classical writers. Cicero* pointed out that not one of the futures foretold for Pompey, Crassus, and Caesar had been verified by their subsequent lives, and added that the planets, being almost infinitely distant, cannot be supposed to affect us. He also alluded to the fact, which was especially pressed by Pliny† , that the horoscopes of twins are practically identical though their careers are often very different, or as Pliny put it, every hour in every part of the world are born lords and slaves, kings and beggars. In answer to the latter obvious criticism astrologers replied by quoting the anecdote of Publius Nigidius Figulus, a celebrated Roman astrologer of the time of Julius Caesar. It is said that when an opponent of the art urged as an objection the different fates of persons born in two successive instants, Nigidius bade him make two contiguous marks on a potter's wheel, which was revolving rapidly near them. On stopping the wheel, the two marks were found to be far removed from each other. Nigidius received the name of Figulus, the potter, in remembrance of this story, but his argument, says St Augustine‡ , who gives us the narrative, was as fragile as the ware which the wheel manufactured. On the other hand Seneca and Tacitus may be cited as being on * Cicero, De Divinatione, ii, 42. † Pliny, Historia Naturalis, vii, 49; xxix, 1. ‡ St Augustine, De Civitate Dei, bk. v, chap. iii; Opera omnia, ed. Migne, vol. vii, p. 143. 244 ASTROLOGY. [CH. X the whole favourable to the claims of astrology, though both recognized that it was mixed up with knavery and fraud. An instance of successful prediction which is given by the latter of these writers* may be used more correctly as an illustration of how the ordinary professors of the art varied their predictions to suit their clients and themselves. The story deals with the first introduction of the astrologer Thrasyllus to the emperor Tiberius. Those who were brought to Tiberius on any important matter were admitted to an interview in an apartment situated on a lofty cliff in the island of Capreae. They reached this place by a narrow path overhanging the sea, accompanied by a single freedman of great bodily strength; and on their return, if the emperor had conceived any doubts of their trustworthiness, a single blow buried the secret and its victim in the ocean. After Thrasyllus had, in this retreat, stated the results of his art as they concerned the emperor, the latter asked the astrologer whether he had calculated how long he himself had to live. The astrologer examined the aspect of the stars, and while he did this showed, as the narrative states, hesitation, alarm, increasing terror, and at last declared that the present hour was for him critical, perhaps fatal. Tiberius embraced him, and told him he was right in supposing he had been in danger but that he should escape it; and made him thenceforth a confidential counsellor. But Thrasyllus would have been but a sorry astrologer had he not foreseen such a question and prepared an answer which he thought fitted to the character of his patron. A somewhat similar story is told† of Louis XI of France. He sent for a famous astrologer whose death he was meditating, and asked him to show his skill by

foretelling his own future. The astrologer replied that his fate was uncertain, but it was so inseparably interwoven with that of his questioner that the latter would survive him but by a few hours, whereon the superstitious monarch not only dismissed him uninjured, but took steps to secure his subsequent safety. The same anecdote is also related of a Scotch student who, being captured by Algerian pirates, predicted to the Sultan that their fates were so involved that he should predecease the Sultan by only a few weeks. This may have been good enough for a barbarian, but with a civilized monarch it * Annales, vi, 22: quoted by Whewell, History of the Inductive Sciences, vol. i, p. 313. † Personal Characteristics from French History, by Baron F. Rothschild, London, 1896, p. 10. The story was introduced by Sir Walter Scott in Quentin Durward (chap. xv). CH. X] ASTROLOGY. 245 probably would in most cases be less effectual, as certainly it is less artistic, than the answer of Thrasyllus. I may conclude by mentioning a few notable cases of horoscopy. Among the most successful instances of horoscopy enumerated by Raphael* is one by W. Lilly, given in his Monarchy or No Monarchy, published in 1651, in which he predicted a plague in London so terrible that the number of deaths should exceed the number of coffins and graves, to be followed by "an exorbitant fire." The prediction was amply verified in 1665 and 1666. In fact Lilly's success was embarrassing, for the Committee of the House of Commons, which sat to investigate the causes of the fire and ultimately attributed it to the papists, thought that he must have known more about it than he chose to declare, and on Oct. 25, 1666, summoned him before them. I may add that Lilly proved himself a match for his questioners. An even more curious instance of a lucky hit is told of Flamsteed† , the first astronomer royal. It is said that an old lady who had lost some property wearied Flamsteed by her perpetual requests that he would use his observatory to discover her property for her. At last, tired out with her importunities, he determined to show her the folly of her demand by making a prediction, and, after she had found it false, to explain again to her that nothing else could be expected. Accordingly he drew circles and squares round a point that represented her house and filled them with all sorts of mystical symbols. Suddenly striking his stick into the ground he said, "Dig there and you will find it." The old lady dug in the spot thus indicated, and found her property; and it may be conjectured that she believed in astrology for the rest of her life. Perhaps the belief that the royal observatory was built for such purposes may be still held, for De Morgan, writing in 1850, says that "persons still send to Greenwich to have their fortunes told, and in one case a young gentleman wrote to know who his wife was to be, and what fee he was to remit." It is easier to give instances of success in horoscopy than of failure. Not only are all ambiguous predictions esteemed to be successful, but it is notorious that prophecies which have been verified by the subsequent * Manual of Astrology, p. 37. † The story, though in a slightly different setting, is given in The London Chronicle, Dec. 3, 1771, and

it is there stated that Flamsteed attributed the result to the direct action of the devil. 246 ASTROLOGY. [CH. X course of events are remembered and quoted, while the far more numerous instances in which the prophecies have been falsified are forgotten or passed over in silence. As exceptionally well-authenticated instances of failures I may mention the twelve cases collected by Cardan in his Geniturarum Exempla. These are good examples because Cardan was not only the most eminent astrologer of his time, but was a man of science, and perhaps it is not too much to say was accustomed to accurate habits of thought; moreover, as far as I can judge, he was perfectly honest in his belief in astrology. To English readers the most interesting of these is the horoscope of Edward VI of England, the more so as Cardan has left a full account of the affair, and has entered into the reasons of his failure to predict Edward's death. To show how Cardan came to be mixed up in the transaction I should explain that in 1552 Cardan went to Scotland to prescribe for John Hamilton, the archbishop of St Andrews, who was ill with asthma and dropsy and about whose treatment the physicians had disagreed* . On his return through London, Cardan stopped with Sir John Cheke, the Professor of Greek at Cambridge, who was tutor to the young king. Six months previously, Edward had been attacked by measles and smallpox which had made his health even weaker than before. The king's guardians were especially anxious to know how long he would live, and they asked Cardan to cast Edward's nativity with particular reference to that point. The Italian was granted an audience in October, of which he wrote a full account in his diary, quoted in the Geniturarum Exempla. The king, says he† , was "of a stature somewhat below the middle height, pale faced, with grey eyes, a grave aspect, decorous, and handsome. He was * Luckily they left voluminous reports on the case and the proper treatment for it. The only point on which there was a general agreement was that the phlegm, instead of being expectorated, collected in his Grace's brains, and that thereby the operations of the intellect were impeded. Cardan was celebrated for his success in lung diseases, and his remedies were fairly successful in curing the asthma. His fee was 500 crowns for travelling expenses from Pavia, 10 crowns a day, and the right to see other patients; the archbishop actually gave him 2300 crowns in money and numerous presents in kind; his fees from other persons during the same time must have amounted to about an equal sum (see Cardan's De Libris Propriis, ed. 1557, pp. 159–175; Consilia Medica, Opera, vol. ix, pp. 124–148; De Vita Propria, ed. 1557, pp. 138, 193 et seq.). † I quote from Morley's translation, vol. ii, p. 135 et seq. CH. X] ASTROLOGY. 247 rather of a bad habit of body than a sufferer from fixed diseases, and had a somewhat projecting shoulder-blade." But, he continues, he was a boy of most extraordinary wit and promise. He was then but fifteen years old and he was already skilled in music and dialectics, a master of Latin, English, French, and fairly proficient in Greek, Italian, and Spanish. He "filled with the highest expectation every good

and learned man, on account of his ingenuity and suavity of manners. . . . When a royal gravity was called for, you would think that it was an old man you saw, but he was bland and companionable as became his years. He played upon the lyre, took concern for public affairs, was liberal of mind, and in these respects emulated his father, who, while he studied to be [too] good, managed to seem bad." And in another place* he describes him as "that boy of wondrous hopes." At the close of the interview Cardan begged leave to dedicate to Edward a work on which he was then engaged. Asked the subject of the work, Cardan replied that he began by showing the cause of comets. The subsequent conversation, if it is reported correctly, shows good sense and considerable logical skill on the part of the young king. * De Rerum Varietate, p. 285. 248 ASTROLOGY. [CH. X I have reproduced on the previous page a facsimile of Cardan's original drawing of Edward's horoscope. The horoscope was cast and read with unusual care. I need not quote the minute details given about Edward's character and subsequent career, but obviously the predictions were founded on the impressions derived from the abovementioned interview. The conclusion about his length of life was that he would certainly live past middle age, though after the age of 55 years 3 months and 17 days various diseases would fall to his lot* . In the following July the king died, and Cardan felt it necessary for his reputation to explain the cause of his error. The title of his dissertation is Quae post consideravi de eodem† . In effect his explanation is that a weak nativity can never be predicted from a single horoscope, and that to have ensured success he must have cast the nativity of every one with whom Edward had come intimately into contact; and, failing the necessary information to do so, the horoscope could be regarded only as a probable prediction. This was the argument usually offered to account for non-success. A better defence would have been the one urged by Raphael‡ and by Southey§ that there might be other planets unknown to the astrologer which had influenced the horoscope, but I do not think that medieval astrologers assigned this reason for failure. I have not alluded to the various adjuncts of the art, but astrologers so frequently claimed the power to be able to raise spirits that perhaps I may be pardoned for remarking that I believe some of the more important and elaborate of these deceptions were effected not infrequently by means of a magic lantern, the pictures being sometimes thrown on to a mirror, and at other times on to a thick cloud of smoke which caused the images to move and finally disappear in a fantastic way capable of many explanations‖ . I would conclude by repeating again that though the practice of astrology was so often connected with impudent quackery, yet one ought not to forget that nearly every physician and man of science in medieval Europe was an astrologer. These observers did not consider that its * Geniturarum Exempla, p. 19. † Ibid., p. 23. ‡ The Familiar Astrologer, London, 1832, p. 248. § The Doctor, chap. 92. ‖ See ex. gr. the life of Cellini, chap. xiii, Roscoe's translation, pp. 144-146. See also Sir David Brewster's

Letters on Natural Magic. CH. X] ASTROLOGY. 249 rules were definitely established, and they laboriously collected much of the astronomical evidence that was to crush their art. Thus, though there never was a time when astrology was not practised by knaves, there was a period of intellectual development when it was honestly accepted as a difficult but a real science. CHAPTER XI. CRYPTOGRAPHS AND CIPHERS. The art of constructing cryptographs or ciphers—intelligible to those who know the key and unintelligible to others—has been studied for centuries. Their usefulness on certain occasions, especially in time of war, is obvious, while it may be a matter of great importance to those from whom the key is concealed to discover it. But the romance connected with the subject, the not uncommon desire to discover a secret, and the implied challenge to the ingenuity of all from whom the key is hidden, have attracted to the subject the attention of many to whom its utility is a matter of indifference. The leading authorities on the subject, few of which are less than a century old, are enumerated in an article by J.E. Bailey in the ninth edition of the Encyclopaedia Britannica, and references to various historic ciphers are there given. My knowledge of the subject, however, is limited to ciphers which I have met with in the course of casual reading, and I prefer to discuss the subject as it has presented itself to me, with no attempt to make it historically complete and no reference to other authorities. In fact the theory of the subject is not sufficiently important to make it worth while to try to deal with it historically or exhaustively. Most writers use the words cryptograph and cipher as synonymous. I employ them, however, with different meanings, which I proceed to define. A cryptograph may be defined as a manner of writing in which the letters or symbols employed are used in their normal sense, but are so arranged that the communication is intelligible only to those possessing 250 CH. XI] CRYPTOGRAPHS AND CIPHERS. 251 the key. The word is sometimes used to denote the communication made. A simple example is a communication in which every word is spelt backwards. Thus: ymene deveileb ot eb gniriter troper noitisop no ssorc daor. A cipher may be defined as a manner of writing by characters arbitrarily invented or by an arbitrary use of letters, words, or characters in other than their ordinary sense, intelligible only to those possessing the key. The word is sometimes used to denote the communication made. A simple example is when each letter is replaced by the one that immediately follows it in the natural order of the alphabet, a being replaced by b, b by c, and so on, and finally z by a. In this cipher the above message would read: fofnz cfmjfwfe up cf sfujsjoh sfqpsu qptjujpo po dsptt spbe. In both cryptographs and ciphers the essential feature is that the communication may be freely given to all the world though it is unintelligible save to those who possess the key. The key must not be accessible to anyone, and if possible it should be known only to those using the cryptograph or cipher. The art of constructing a cryptograph lies in the concealment of the proper order of the essential letters or words: the art of

constructing a cipher lies in concealing what letters or words are represented by the symbols used. In an actual communication cipher symbols may be arranged cryptographically, and thus further hinder a reading of the message. Thus the message given above would read in a cryptographic cipher as znfof efwfjmfc pu fc hojsjufs uspqfs opjujtpq op ttpsd ebps. If the message were sent in Latin or some foreign language it would further diminish the chance of it being read by a stranger through whose hands it passed. But I may confine myself to messages in English, and for the present to simple cryptographs and ciphers. A communication in cryptograph or cipher must be in writing or in some permanent form. Thus to make small muscular movements— such, ex. gr., as talking on the fingers, or breathing long and short in the Morse dot and dash system, or making use of pre-arranged signs by a fan or stick, or flashing signals by light—do not here concern us. 252 CRYPTOGRAPHS AND CIPHERS. [CH. XI Again, the mere fact that the message is concealed or conveyed secretly does not make it a cryptograph or cipher. The majority of stories dealing with secret communications are concerned with the artfulness with which the message is concealed or conveyed and have nothing to do with cryptographs or ciphers. Many of the ancient instances of secret communication are of this type* . Illustrations are to be found in messages conveyed by pigeons, or wrapped round arrows shot over the head of a foe, or written on the paper wrapping of a cigarette, or the use of ink which becomes visible only when the recipient treats the paper on which it is written by some chemical or physical process. Again, a communication in a foreign language or in any recognized notation like shorthand is not an instance of a cipher. A letter in Chinese or Polish or Russian might be often used for conveying a secret message from one part of England to another, but it fails to fulfil our test that if published to all the world it would be concealed from everyone, unless submitted to some special investigation. On the other hand, in practice, foreign languages or systems of shorthand which are but little known may serve to conceal a communication better than an easy cipher, for in the last case the key may be found with but little trouble, while in the other cases, though the key may be accessible, it is probable that there are only a few who know where to look for it. An illustration of this is afforded by the system used by Pepys in writing his Diary which is further alluded to below. I proceed to enumerate some of the better known types of cryptographs. There are at least three distinct types. The first type comprises those in which the order of the letters is changed in some prearranged manner. The second type comprises those in which the concealment is due to the introduction of non-significant letters. The third type comprises those in which the letters used are written in fragments. The types are not exclusive, and any particular cryptograph may comprise the distinctive feature of two or all the types. A cryptograph of the first type is one in which the successive letters of the message are re-arranged in some pre-determined manner. One of the most

obvious cryptographs of this type is to write each word or the message itself backwards. He would, however, be a careless reader who could be deceived by this. Here is an instance in which the * A long list of classical authorities for different devices used in ancient times for concealing messages is given in Mercury by J. Wilkins, London, 1641, pp. 27–36. CH. XI] CRYPTOGRAPHS 253 whole message is written backwards: tsop yb tnes tnemeerga fo seniltuo smret ruo tpecca yeht. In such a case it is unnecessary to indicate the division into words by leaving spaces between them, and we might divide the letters artificially, as thus: Ts opybtne stne meer gafos eniltu osmret ruot peccaye ht. Systems of this kind which depend on altering the places of letters or lines in some pre-arranged manner have always been common. I quote a couple of instances* from Wilkins's book to which I have already referred—it was a work which seems to have been studied diligently by many of those who took part in the civil disturbances of the 17th century, and gives an excellent account of some of the easier systems of cryptographs and ciphers. The first example I take from him is where the letters which make up the communication are written vertically up or down. Thus the message: The pestilence continues to increase might be written thus: e i o t n l i t s n t i o e t h a c s n c n s e e r e u e c e p Again, Wilkins says that the cryptograph may be yet further obscured by placing the letters which make up the message in any prearranged but discontinuate order. For instance if the message runs to four lines we may put the first letter at the beginning of the first line, the second at the beginning of the fourth line, the third at the end of the first line, the fourth at the end of the fourth line, the fifth at the beginning of the second line, the sixth at the beginning of the third line, the seventh at the end of the second line, the eighth at the end of the third line, and so on. Thus the message: Wee shall make an Irruption upon the Enemie, from the North, at ten of the clock this * Mercury, or the Secret and Swift Messenger, by J. Wilkins, London, 1641, pp. 50–52. 254 CRYPTOGRAPHS AND CIPHERS. [CH. XI night would read thus: Wm rpeta hhs cteinpke haih fonoih kftoe nil anoerr ocgt tthmnu rl eauo mhtei nlen ettes, where, to obscure the message further, it is divided arbitrarily into what appear to be words. Another instance of a cryptograph of this type may be constructed thus. First, by writing the message in lines of some arranged length, say, for instance, each containing seventeen letters—the letters in successive lines being arranged vertically under those corresponding to them in the upper line—and either leaving no spaces between the words or inserting some pre-arranged letter or letters or digits between them, such as j, q, z. The message can be then sent as a cryptograph by writing the letters in order in successive vertical lines. This only comes to saying that we write successively the 1st, 18th, 35th letters of the original message, and then the 2nd, 19th, 36th letters, and so on. To confuse the decipherer the final reading may be arbitrarily put into what might represent words. If, however, we know the clue number,

say c, it is easy enough to read the communication. For if it divides into the number of letters n times with a remainder r it suffices to re-write the message in lines putting n + 1 letters in each of the first r lines, and n letters in each of the last c − r lines, and then the communication can be read by reading the columns downwards. For instance, if the following communication, containing 270 letters, were received: Ahtzeipqhgesoa eouazsesewaeqtmusfdtbenzcesjteottqizyczhtzjioarhqettjrfesftnzmroomoh yearziaqneornbreotlennkaerwizesjuasjodezwjzzszjbrrittjnfjlweuzroqyfoht qayeizsleopjidihaloalhpepkrheanazsrvliimosiadygtpekijscerqvvjqjqajqnyji ntkaehsbhsnbgoaotqetqeuuesayqurntpebqstzamztqrj , and the clue number were 17 we should put 16 letters in each of the first 15 lines and 15 letters in each of the last 2 lines. The communication could then be discovered by reading the columns downwards: the letters j, q, and z marking the ends of words. Another cryptograph of this type may be constructed by arranging the letters cyclically, and agreeing that the communication is to be made by selected letters, as, for instance, every seventh, second, seventh, second, and so on. Thus if the communication were Ammunition CH. XI] CRYPTOGRAPHS 255 too low to allow of a sortie, which consists of 32 letters, the successive significant letters would come in the order 7, 9, 16, 18, 25, 27, 2, 4, 13, 15, 24, 28, 5, 8, 20, 22, 1, 6, 21, 26, 11, 14, 32, 10, 31, 12, 17, 23, 3, 29, 30, 19—the numbers being selected as in the decimation problem given above on pages 19–20, and being struck out from the 32 cycle as soon as they are determined. The above communication would then read Ttriooalmolaoonmsueoawotnliotifw. This is a good cryptograph, but it is troublesome to construct, especially if the message is long, and for that reason is not to be recommended. A cryptograph of the second type is one in which the message is expressed in ordinary writing, but in it are introduced a number of dummies or non-significant letters or digits thus concealing which of the letters are relevant. One way of picking out those letters which are relevant is by the use of a perforated card of the shape of (say) a sheet of note-paper, which when put over such a sheet permits only such letters as are on certain portions of it to be visible. Such a card is known as a grille. An example of a grille with four openings is figured below. A communication made in this way may be easily concealed from anyone who does not possess A B CD a card of the same pattern. If the recipient possesses such a card he has only to apply it in order to read the message. The use of the grille may be rendered less easy to detect if it be used successively in different positions, for instance, with the edges AB and CD successively put along the top of the paper containing the message. On the next page, for instance, is a message which, with the aid of the grille figured above, is at once intelligible. On applying the grille to it with the line AB along the top HK we get the first half of the communication, namely, 1000 rifles se. On applying the grille with the line CD along the top HK we get the rest of the message, 256

CRYPTOGRAPHS AND CIPHERS. [CH. XI namely, nt to L to-day. The other spaces in the paper are filled with non-significant letters or numerals in any way we please. Of course any one using such a grille would not divide the sheet of paper on which the communication was written into cells, but in the figure I have done so in order to render the illustration clearer. 981 264 070 523 479 100 NT T ORI SON SON AHY DT C BF S P UM OLT KF E LJO EGX AEU QJT EGO F LE HV E W LA FML AES REM REM ODA SSE Y ZZ EP D QJC EKS T IM OEF H K We can avoid the awkward expedient of having to use a perforated card, which may fall into undesired hands, by introducing a certain pre-arranged number of dummies or non-significant letters or symbols between those which make up the message. Thus, to take an extreme case, we might arrange that only every 101st letter should form our communication, and the intervening 100 letters should be written at random. But such a communication would be 101 times longer than the message, a nearly fatal objection if it had to be written in a hurry or telegraphed. A better method, and one which is not easily discovered by a stranger, is to arrange that (say) only every alternate second and third letter shall be relevant. Thus the first, third, sixth, eighth, eleventh, etc., letters are those that make up the message. Such a communication would be only two and a half times as long as the message, but even that might be a great disadvantage if time in sending the message was of importance. For a message written at leisure this need not matter much, and in such a code the introduction of a sufficient number of unnecessary letters in some pre-arranged manner gives an effectual means of conveying a message in secret. We can also avoid the use of a perforated card if it be arranged that every n th word shall give the message, the other words being nonsignificant, though of course inserted as far as possible so as to make the complete communication run as a whole. But the difficulty of composing a document of this kind and its great length render it unsuitable for any purpose except an occasional communication composed at leisure CH. XI] CRYPTOGRAPHS 257 and sent in writing. This method is said to have been used by the Earl of Argyle when plotting against James II. Similarly any system that rests on picking out certain letters in a document, which letters form a communication in ordinary writing, is a cryptograph. Thus a communication conveyed by a newspaper, in which the letters making up the message are indicated by pen dots or pin pricks or in some other agreed way, is a cryptograph. A kind of secret writing which may perhaps be considered to constitute a third type of cryptograph is a communication on paper which is legible only when the paper is folded in a particular way. An example is a message written across the edges of a strip of paper wrapped spiralwise round a stick called a scytale. When the paper is unwound and taken off the stick the letters appear broken, and may seem to consist of arbitrary signs, but by wrapping the paper round a similar stick the message can be again read. This system is said to have been used by the Lacedemonians* . The

concealment can never have been effectual against an intelligent reader who got possession of the paper. The defect of the method is that the broken letters at once attract attention and suggest the system used. If the fact can be concealed that the visible symbols are parts of letters the cryptograph would be much improved. As an illustration take the appended communication which is said to have been given to the Young Pretender during his wanderings after Culloden. If it be creased along the lines BB and CC (CC being along the second line of the second score), and then folded over, with B inside, so that the crease C lies over the line A (which is the second line of the first score) thus leaving only the top * For references, see Wilkins, supra, p. 38. 258 CRYPTOGRAPHS AND CIPHERS. [CH. XI and bottom of the piece of paper visible, it will be found to read conceal yourself, your foes look for you. I have seen what purports to be the original, but of the truth of the anecdote I know nothing, and the desirability of concealing himself must have been so patent that it was hardly necessary to communicate it by a cryptograph. I proceed next to some of the more common types of ciphers. It is immaterial whether we invent characters to denote the various letters; or whether we employ special symbols to represent them, such as the symbol (for a, the symbol : for b, and so on; or whether we use the letters in a non-natural sense, such as the letter z for a, the letter y for b, and so on. The rules for reading the cipher will be the same in each case. In early times it was a common practice to invent arbitrary symbols to represent the letters. If the symbols are invented for the purpose they provoke attention, hence it would seem that preferably we should use symbols which are not likely to attract special notice. For instance, the symbols may be musical notes, in which case the message would appear as a piece of music. Geometrical figures have also been used for the same purpose. It is not even necessary to employ written signs. Natural objects have often been used, as in a necklace of beads, or a bouquet of flowers, where the different shaped or coloured beads or different flowers stand for different letters or words. An even more subtle form of disguising the cipher is to make the different distances between consecutive knots or beads indicate the different letters. Of all such systems we may say that a careful scrutiny shows that different symbols are being used, and as soon as the various symbols are distinguished one from the other no additional complication is introduced, while for practical purposes they are more trouble to send or receive than those written in symbols in current use. Accordingly I confine myself to ciphers written by the use of the current letters and numerals. It is convenient to divide ciphers into four classes. The first class comprises ciphers in which the same letter or word is always represented by the same symbol, and this symbol always represents the same letter or word. The second class comprises ciphers in which the same letter or word is, in some or all cases, represented by more than one symbol, and this symbol always represents the same letter or word. The third class

comprises ciphers in which the same symbol represents sometimes CH. XI] CIPHERS 259 one letter or word and sometimes another. The fourth class comprises ciphers in which each letter or word is always represented by the same symbol, but more than one letter or word may be represented by the same symbol. A cipher of the first type then is one in which the same letter or word is always represented by the same symbol, and this symbol always represents the same letter or word. Perhaps the simplest illustration of a cipher of this type is to employ one language, but written as far as practical in the alphabet of another language. It is said that during the Indian Mutiny messages in English, but written in Greek characters, were used freely, and successfully baffled the ingenuity of the enemy, into whose hands they fell. If this is true, the intelligence of the Hindoos must have been much less than that with which they are usually credited. The device, however, is an old one, for we are told* that Edward VI was accustomed to make notes in cipher “with Greek characters, to the end that they who waited on him should not read them.” A common cipher of this type is made by using the actual letters of the alphabet, but in a non-natural sense as indicating other letters. Thus we may use each letter to represent the one immediately following it in the natural order of the alphabet—the letters being supposed to be cyclically arranged—a standing for b wherever it occurs, b standing for c, and so on, and finally z standing for a. Or more generally we may write the letters of the alphabet in a line, and under them re-write the letters in any order we like. For instance a b c d e f g h i j k l m n o p q r s t u v w x y z o l k m a z s q x e u f y r t h c w b v n i d g j p In such a scheme, we must in our communication replace a by o, b by l, etc. The recipient will prepare a key by rearranging the letters in the second line in their natural order and placing under them the corresponding letter in the first line. Then wherever a comes in the message he receives he will replace it by e; similarly he will replace b by s, and so on. A cipher of this kind is not uncommonly used in military signalling, the order of the letters being given by the use of a key-word. If, for instance, Pretoria is chosen as the key-word, we write the letters in * Sir John Hayward, Life of Edward VI., edition of 1636, p. 20. 260 CRYPTOGRAPHS AND CIPHERS. [CH. XI this order, striking out any which occur more than once, and continue with the unused letters of the alphabet in their natural order, writing the whole in two lines thus: p r e t o i a b c d f g h z y x w v u s q n m l k j Then in using the cipher p is replaced by z and vice versâ, r by y, and so on. A long message in such a cipher would be easily discoverable, but it is rapidly composed by the sender and read by the receiver, and for some purposes may be useful, especially if the discovery of the purport of the message is, after a few hours, immaterial. A summary of the usual rules for reading ciphers of this type, whether written in English, French, German, Italian, Dutch, Latin, or Greek, was given by D.A. Conradus in 1742* ; and similar rules have been given by various later writers. In English the letter which occurs most frequently is e. The next most common

letters are said to be t, a, o, and i; then n; then r, s, and h; then d and l; then c, w, u, and m; then f, y, g, p, and b; then v and k; and then x, q, j, and z. The most common double letters are ee, ll, oo, and ss; while in more than half the cases of a double letter at the end of a word, the letter is either l or s. Also, t and h form a common conjunction. I need not, however, go here into further details of this kind. Assuming that the division into words is given, that non-significant symbols are not introduced, and that the problem is not complicated by the avoidance of the use of common words, a communication of any considerable length can usually be read with but little difficulty. The hints given by Conradus will at once suggest certain hypotheses as to which letters stand for which. Taking one of these hypotheses we write the message, replacing the symbols by the letters we conjecture that they represent and replace the others by dots. If the hypothesis is tenable, the arrangement will probably suggest some of the missing letters. If, for example, we find two words emphs-all and empht-e where the missing letter is represented by the same symbol, the first word shows us that the missing letter is h, m, or t, and the second word shews us that it must be e, h, i, or o, hence it must be h. Every fresh letter so determined makes the hypothesis more probable and renders * Gentleman's Magazine, 1742, vol. xii, pp. 133–135, 185–186, 241–242, 473–475. See also the Collected Works of E.A. Poe in 4 volumes, vol. i, p. 30 et seq. CH. XI] CIPHERS 261 it easier to guess what the remaining symbols represent. The chief difficulty is to get a working hypothesis for the first few letters—if it is the true solution, probably the puzzle will be readily solved—but to make up a working hypothesis for even a few letters requires patience. Ciphers of this class in which the division between the words is given are to be avoided. If we leave a space between such words a would-be decipherer is given an immense help. He will naturally try if a word denoted by a single symbol can be an i or an a, while the words of two or three letters will often stand revealed and so provide a definite groundwork on which he can construct the key. A long word may also betray the secret. For instance, if the decipherer has reason to suspect that the message related to something connected with Birmingham, and he found that a particular word of ten letters had its second and fifth letters alike, as also its fourth and tenth letters, he would naturally see how the key would work if the word represented Birmingham, and on this hypothesis would at once know the letters represented by eight symbols. With reasonable luck this should suffice to enable him to tell if the hypothesis was tenable. The effect of this can be avoided by leaving no spaces between the words, but this might lead to confusion and is not to be recommended. We can also use letters which occur but rarely, such as j, q, x, z, to separate words, and probably this is the best method. Ciphers of this type suggest themselves naturally to those approaching the subject for the first time, and are commonly made by merely shifting the letters a certain number of places forward. If this is done we may decrease the risk of detection by

altering the amount of shifting at short (and preferably irregular) intervals. Thus it may be agreed that if initially we shift every letter one place forward then whenever we come to the letter (say) n we shall shift every letter one more place forward. In this way the cipher changes continually, and is essentially changed to one of the third class; but even with this improvement it is probable that an expert would decode a fairly long message without much difficulty. We can have ciphers for numerals as well as for letters: such ciphers are common in many shops. Any word or sentence containing ten different letters will answer the purpose. Thus, an old tradesman of my acquaintance used the excellent precept Be just O Man—the first letter representing 1, the second 2, and so on. In this cipher the price 10/6 262 CRYPTOGRAPHS AND CIPHERS. [CH. XI would be marked bn/t. This is an instance of a cipher of the first type. A cipher of the second type is one in which the same letter or word is, in some or all cases, represented by more than one symbol, and this symbol always represents the same letter or word. Such ciphers were uncommon before the Renaissance, but the fact that to those who held the key they were not more difficult to write or read than ciphers of the first type, while the key was not so easily discovered, led to their common adoption in the seventeenth century. A simple instance of such a cipher is given by the use of numerals to denote the letters of the alphabet. Thus a may be represented by 11 or by 37 or by 63, b by 12 or by 38 or by 64, and so on, and finally z by 36 or by 62 or by 88, while we can use 89 or 90 to signify the end of a word and the numbers 91 to 99 to denote words or sentences which constantly occur. Of course in practice no one would employ the numbers in an order like this, which suggests their meaning, but it will serve to illustrate the principle. I have deliberately used numbers of only two digits, as the recipient can then point off the symbols used in twos, and will know that each pair of symbols represents a letter, word, or sentence in the message. A disadvantage of this cipher is that since each letter is denoted by two symbols the length of the message is doubled by putting it in cipher. The cipher can be improved by introducing after every (say) eleventh digit a non-significant digit. If this is done the recipient of the message must erase every twelfth digit before he begins to read the message. With this addition the difficulty of discovering the key is considerably increased. The same principle is sometimes applied with letters instead of numbers. For instance, if we take a word (say) of n letters, preferably all different, and construct a table as shown below of n 2 cells, each cell is defined by two letters of the key-word. Thus, if we choose the word smoking-cap we shall have 100 cells, and each cell is determined uniquely by the two letters denoting its row and column. If we fill these cells in order with the letters of the alphabet we shall have a system similar to that explained above, where a will be denoted by ss or og or no, and so for the other letters. The last 22 cells may be used to denote the first 22 letters of the alphabet, or better, three or four of them may be used after the end of a word to show

that it is ended, and the rest may be used to denote words or sentences which are likely CH. XI] CIPHERS 263 S M O K I N G C A P S a b c d e f g h i j M k l m n o p q r s t O u v w x y z a b c d K e f g h i j k l m n I o p q r s t u v w x N y z a b c d e f g h G i j k l m n o p q r C s t u v w x y z A P to occur frequently. Like the similar cipher with numbers this can be improved by introducing after every mth letter any single letter which it is agreed shall be non-significant. To decipher a communication so written it is necessary to know the clue-word and the clue-number. Here for instance is a communication written in the above cipher with the clue-word smoking-cap, and with 7 as the clue-number: ngmk sigrioicpssamckscakqignassnxmigpoasuiamnocmpaminscnogcpncisyiksk amsssgnncaekknoomkhscpcmscbgpngsiawssgiggndiica 1 . In this sentence the letters denoting the 79th, 80th, 81st, and 82nd cells have been used to denote the end of a word, and no use has been made of the last 18 cells. Another cipher of this type is made as follows* . The sender and recipient of the message furnish themselves with identical copies of some book. In the cipher only numerals are used, and these numerals indicate the locality of the letters in the book. For example, the first letter in the communication might be indicated by 79–8–5, meaning that it is the 5th letter in the 8th line of the 79th page. But though secrecy might * The method is well known. It is mentioned by E.A. Poe, Collected Works, vol. iii, pp. 338–9, but is much older. 1. The original text read . . . sssgnnn. . . , which leads to gobbledegook in the deciphered message. 264 CRYPTOGRAPHS AND CIPHERS. [CH. XI be secured, it would be very tedious to prepare or decode a message, and the method is not as safe as some of those described below. Another cipher of this type is for the sender and receiver to agree on some common book of reference and to agree further on a number which, if desired, may be communicated as part of the message. To employ this cipher the page of the book indicated by the given number must be used. The first letter in it is taken to signify a, the next b, and so on–any letter which occurs a second time or more frequently being neglected. It may be also arranged that after n letters of the message have been ciphered, the next n letters shall be written in a similar cipher taken from the pth following page of the book, and so on. Thus the possession of the code-book would be of little use to anyone who did not also know the numbers employed. It is so easy to conceal the clue number that with ordinary prudence it would be almost impossible for an unauthorized person to discover a message sent in this cipher. The clue number may be communicated indirectly in many ways. For instance, it may be arranged that the number to be used shall be the number sent, plus (say) q, or that the number to be used shall be an agreed multiple of the number actually sent. A cipher of the third type is one in which the same symbol represents sometimes one letter or word and sometimes another. Usually such ciphers are easily made or read by those who have the key, but are difficult to discover by those who do not possess it. A simple

example is the employment of pre-arranged numbers in shifting forward the letters that make the communication. For instance, if we agree on the clue number (say) 4276, then the first letter in the communication is replaced by the fourth letter which follows it in the natural order of the alphabet: for instance, if it were an a it would be replaced by e. The next letter is replaced by the second letter which follows it in the natural order of the alphabet: for instance, if it were an a it would be replaced by c. The next letter is replaced by the seventh after it. The next by the sixth after it. The next by the fourth, and so on to the end of the message. Of course to read the message the recipient would reverse the process. If the letters of the alphabet are written at uniform intervals along a ruler, and another ruler similarly marked with the digits can slide along it, the letter corresponding to the shifting of any given number of places can be read at once. It would be undesirable to allow the division into words to appear CH. XI] CIPHERS 265 in the message, and either the words must be run on continuously, or preferably the less common letters j, q, z may be used to mark the division of words. It is also well to conceal the number of digits in the clue-number. This can be done and the cipher much improved by inserting after every (say) mth letter a non-significant letter. Here for instance is a communication written in this cipher with the clue-numbers 4276 and 7: atpznhvaxuxhiepxafwghzniyprpsikbdkzy
ygkqprgezuytlkobldifebzmxlpogquyitcmgxkckuexvsqkaziaggsigaytnvvsstyv
uaslywgjuzmcsfctqbpwjvaepfxhibwpxiultxlavvtqzoxwkvtuvvfheqbxnpvismp hzmqtuwxjykeevltif . The recipient would begin by striking out every eighth letter. He would then shift back every letter 4, 2, 7, 6, 4, 2, &c., places respectively, and in reading it would leave out the letters j, q, and z as only marking the ends of words. This is an excellent cipher, and it has the additional merit of not materially lengthening the message. It can be rendered still more difficult by arranging that either or both the clue-numbers shall be changed according to some definite scheme, and it may be further agreed that they shall change automatically every day or week. A somewhat similar system was proposed by Wilkins* . He took a key-word, such as prudentia, and constructed as many alphabets as there were letters in it, each alphabet being arranged cyclically and beginning respectively with the letters p, r, u, d, e, n, t, i, and a. He thus got a table like the following, giving nine possible letters which might stand for any letter of the alphabet. Using this we may vary the cipher in successive words or letters of the communication. Thus a b c d e f g h i k l m n o p q r s t u v w x y z p q r s t u v w x y z a b c d e f g h i k l m n o r s t u v w x y z a b c d e f g h i k l m n o p q u v w x y z a b c d e f g h i k l m n o p q r s t d e f g h i k l m n o p q r s t u v w x y z a b c e f g h i k l m n o p q r s t u v w x y z a b c d n o p q r s t u v w x y z a b c d e f g h i k l m t u v w x y z a b c d e f g h i k l m n o P q r s i k l m n o p q r s t u v w x y z a b c d e f g h a b c d e f g h i k l m n o p q r s t u v w x y z * Mercury, by J. Wilkins, London, 1641, pp. 59, 60. 266 CRYPTOGRAPHS AND CIPHERS. [CH. XI the message

The prisoners have mutinied and seized the railway station would, according as the cipher changes in successive words or letters, read as Hwt fhziedvhi bupy pxwmqmhg erh ervmrq max zirteig station or as Hyy svvlwnthm lehx uukzgmiq tvd gvcciq mqe frcoanr atpkcrr. I have taken Wilkins's key-word, but it is obvious that it would be desirable to omit a wherever it appears in it, since otherwise, if the cipher changes in successive words, some of the words may appear unaltered in the cipher, as is shown in the first of the examples given above. A cipher of the fourth type is one in which each letter is always represented by the same symbol, but more than one letter may be represented by the same symbol. Such ciphers were not uncommon at the beginning of the nineteenth century, and were usually framed by means of a key-sentence containing about as many letters as there are letters in the alphabet. Thus if the key-phrase is The fox jumped over the garden gate, we write under it the letters of the alphabet in their usual sequence as shown below: T h e f o x j u m p e d o v e r t h e g a r d e n g a t e . a b c d e f g h i j k l m n o p q r s t u v w x y z a b c . Then we write the message replacing a by t or a, b by h or t, c by e, d by f, and so on. Here is such a message. M foemho nea ge eoo jmdhohg avf teg ev ume afrmeo. But it will be observed that in the cipher a may represent a or u, d may represent l or w, e may represent c or k or o or s or x, g may represent t or z, h may represent b or r, o may represent e or m, r may represent p or v, and t may represent a or b or q. And the recipient, in deciphering it, must judge as best he can which is the right meaning to be assigned to these letters when they appear. An instance of a cipher of the fourth type is afforded by a note sent by the Duchess de Berri to her adherents in Paris, in which she employed the key phrase l e g o u v e r n e m e n t p r o v i s o i r e. a b c d e f g h i j k l m n o p q r s t u v x y. Hence in putting her message into cipher she replaced a by l, b by e, c by g, and so on. She forgot however to supply the key to the recipients of the message, but her friend Berryer had little difficulty in reading it by the aid of the rules I have indicated, and thence deduced the key-phrase she had employed. CH. XI] CIPHERS 267 Having considered various classes of cryptographs and ciphers I may now consider what features we should regard as important in choosing a cipher intended for practical use. In the first place, it is obvious that the means employed should be such as not to excite suspicion if the communication falls into unauthorized hands. But this is a counsel of perfection, and almost impossible to attain. In the second place, we may say that, under modern conditions in war, finance, or diplomacy, a cipher may be useless unless it can be telegraphed or telephoned. If this is deemed important, it will practically restrict us to the use of the 26 letters of the alphabet, the 10 numerical symbols for the digits, to which if we like we may add a few additional marks such as punctuation stops, brackets, &c. The same condition will require that the message should not be unduly lengthened by being turned into cipher. Hence any considerable use of non-significant symbols is to be deprecated. In

the third place, the key to the cipher should be such that it can be easily reproduced from memory. For, if the key is so elaborate that those who use it are obliged to preserve it in some tangible and accessible form, unauthorized persons may obtain the power of reading messages. Hence the key should be reproducible at will. Further, it is desirable that the key should be of such a character that it (or a change of it) can be telegraphed or otherwise communicated without the probability of exciting suspicion. In the fourth place, a cipher should be capable of change at short intervals. So that if the reading of one message in it be discovered subsequent messages may be undecipherable even though the system used is unaltered. Lastly, no ambiguity should be possible in deciphering the communication. This will exclude ciphers of the fourth type. Accordingly in choosing a good cipher we should seek for one in which only current letters, symbols, or words are employed; such that its use does not unduly lengthen the message; such that the key to it can be reproduced at will and need not be kept in a form which might betray the secret to an unauthorized person; such that the key to it changes or can be changed at short intervals; and such that it is not ambiguous. Many ciphers of the second and third types fulfil these conditions, but it is generally desirable to avoid ciphers of the first type 268 CRYPTOGRAPHS AND CIPHERS. [CH. XI unless circumstances permit of the free use of a code-book. The use of instruments giving a cipher, which is or can be varied constantly and automatically, has been often recommended. Several have been constructed on the lines of the well-known letter-locks* . The possession of the key of the instrument as well as a knowledge of the clue-word is necessary to enable anyone to read a message, but the risk of some instrument, when set, falling into unauthorized hands must be taken into account. Since equally good ciphers can be constructed without the use of mechanical devices I do not think their employment can be recommended. This chapter has already run to such a length that I cannot find space to describe more than one or two ciphers that appear in history or fiction, but, we may say that until recently most of the historical ciphers are not difficult to read. It is said that Julius Caesar in making secret memoranda was accustomed to move every letter four places forward, writing d for a, e for b, &c. This would be a very easy instance of a cipher of the first type, but it may have been effective at that time. His nephew Augustus sometimes used a similar cipher, in which each letter was moved forward one place† . Bacon proposed a cipher in which each letter was denoted by a group of five letters consisting of A and B only. Since there are 32 such groups, he had 6 symbols to spare, which he could use to separate words or to which he could assign special meanings. A message in this cipher would be five times as long as the original message. This may be compared with the far superior system of the five (or four) digit codebook system in use at the present time. Charles I used ciphers freely in important correspondence—the majority being of the second type. He was foolish enough to take a

cabinet containing many confidential letters in cipher, to some of which their * See, for instance, the descriptions of those devised by Sir Charles Wheatstone, given in his Scientific Papers, London, 1879, pp. 342–347; and by Capt. Bazeries in Comptes Rendus, Association Français pour l'avancement des sciences, vol. xx (Marseilles), 1891, p. 160, et seq. † Of some of Caesar's correspondence, Suetonius says (cap. 56) si quis investigare et persequi velit, quartam elementorum literam, id est, d pro a, et perinde reliquas commutet. And of Augustus he says (cap. 88) quoties autem per notas scribit, b pro a, c pro b, ac deinceps eadem ratione, sequentes literas ponit; pro x autem duplex a. CH. XI] CIPHERS 269 readings were appended, on the field of Naseby, where they fell into the hands of Fairfax* . The House of Commons sent them to a committee presided over by a Mr Tate. It is commonly believed that the Committee referred the papers to J. Wallis† , then Fellow of Queens' College, Cambridge, and subsequently Savilian Professor at Oxford, who discovered the key to them. At any rate the letters were read. In these ciphers each letter was represented by a number. The clues to some of the ciphers were provided by the King who had written over the number the letter which it represented, as shown in the following quotation: c a t o l i c k s i n F 11 18 45 35 23 27 11 25 47 28 40 148 haue layed t h i r p u r s e s t o g e t h e r 45 31 27 51 33 62 50 47 7 48 45 35 21 7 46 32 7 51 f o r s u p l y of a r m e s. – – – 15 35 50 a 47 62 33 23 74 k1 17 51 42 7 47. – – – The published letters show that the King used different ciphers at different times, though perhaps he used the same one in all correspondence with any particular person, but the general character of those he employed is the same. The sentence quoted above is taken from a letter from Queen Henrietta Maria of January 26, 1643. In this and another letter a few months later a is represented by 17 or 18, b by 13, c by 11 or 12, d by 5, e by 7 or 8 or 9 or 10, f by 15 or 16, g by 21, h by 31 or 32, i by 27 or 28, k by 25, l by 23 or 24, m by 42 or 44, n by 39 or 40 or 41, o by 35 or 36 or 37 or 38, p by 33 or 34, r by 50 or 51 or 52, s by 47 or 48, t by 45 or 46, u by 62 or 63, w by 58, and y by 74 or 77. Numbers of three digits were used to represent particular people or places. Thus 148 stood for France, 189 for the King, 260 for the Queen, 354 for Prince Rupert, and so on. Further, there were a few special symbols, thus k1 stood for but, n1 for to, and f 1 for is. The numbers 2 to 4 and 65 to 72 were non-significant, and were to be struck out or neglected by the recipient of the message. Each symbol is separated from that which follows it by a full-stop. * First Report of the Royal Commission on Historical Manuscripts, 1870, pp. 2, 4. † See his letters on Cryptography, Opera, vol. iii, pp. 659–672. 270 CRYPTOGRAPHS AND CIPHERS. [CH. XI The Queen seems to have found writing in cipher a great trouble. In the letter from which I have already quoted a sentence she says . . . que je suis extrement tourmantee du mal de teete qui fait que je mesteray en syfre par un autre se qui jovois fait moy mesme, and she uses the cipher only for the particular words it was desired to conceal. Thus she writes Mr Capell nous a

fait voir que sy 27, 23, &c., &c. If by this she saved herself trouble, she did it at the cost of rendering the cipher much easier to read. The system used by Charles was in considerable repute during the seventeenth century, but even without extraneous help it is possible for a diligent student to discover the key if the message is fairly long. An excellent illustration of this fact is to be found in the writings of the late Sir Charles Wheatstone. A paper in cipher, every page of which was initialled by Charles I, and countersigned by Lord Digby, was purchased some years ago by the British Museum. It was believed to be a state paper of importance. It consists of a series of numbers (about 150 different symbols being used) without any clue to their meaning, or any indication of a division between the words employed. The task of reading it was rendered the more difficult by the supposition, which proved incorrect, that the document was in English; but notwithstanding this, Sir Charles Wheatstone discovered the key* . In this cipher a was represented by any of the numbers 12, 13, 14, 15, 16, or 17, b by 18 or 19, and so on, while some 65 special words were represented by particular numbers. I may note in passing that Charles also used a species of shorthand, in which the letters were represented by four strokes varying in length and position. Essentially the system is simple, though it is troublesome to read or write. The famous diary of Samuel Pepys is commonly said to have been written in cipher, but in reality it is written in shorthand according to a system invented by T. Shelton† . It is however somewhat difficult to read, for the vowels are usually omitted, and Pepys used some arbitrary signs for terminations, particles, and certain words—so far turning it into a cipher. Further, in certain places, when the matter * The document, its translation, and the key used are given in Wheatstone's Scientific Papers, London, 1879, pp. 321–341. † Tachy-graphy by T. Shelton. The earliest edition I have seen is dated 1641. A somewhat similar system by W. Cartwright was issued by J. Rich under the title Semographie, London, 1644. CH. XI] CIPHERS 271 is such that it can hardly be expressed with decency, he changed from English to a foreign language, or inserted non-significant letters. Shelton's system had been forgotten when attention was first attracted to the diary. Accordingly we may say that, to those who first tried to read it, it was written in cipher, but Pepys's contemporaries would have properly described it as being written in shorthand, though with a few modifications of his own invention. A system of shorthand specially invented for the purpose is a true cipher. One such system in which each letter is represented either by a dot or by a line of constant length was used by the Earl of Glamorgan, better known by his subsequent title as Marquis of Worcester, in 1645, as also by Charles I. in some of his private correspondence. It is a cipher of the first type and has the defects inherent in almost every cipher of this kind: in fact Glamorgan's letter was deciphered, and the system discovered by Mr Dircks* . Obsolete systems of shorthand† might be thus used to form an effective cipher. It is always difficult to read a very short message in cipher, since

necessarily the clues are few in number. When the Chevalier de Rohan was sent to the Bastille, on suspicion of treason, there was no evidence against him except what might be extracted from Monsieur Latruaumont. The latter died without making any admission. De Rohan's friends had arranged with him to communicate the result of Latruaumont's examination, and accordingly in sending him some fresh body linen they wrote on one of the shirts Mg dulhxcclgu ghj yxuj, lm ct ulgc alj. For twenty-four hours de Rohan pored over the message, but, failing to read it, he admitted his guilt, and was executed November 27, 1674. The cipher is a very simple one of the first type, but the communication is so short that unless the key were known it would not be easy to read it. Had de Rohan suspected that the second word was prisonnier, it would have given him 7 out of the 12 letters used, and as the first and third words suggest the symbols used for l and t, he could hardly have failed to read the message. * Life of the Marquis of Worcester by H. Dircks, London, 1865. Worcester's system of shorthand was described by him in his Century of Inventions, London, 1663, sections 3, 4, 5. † Various systems, including those used in classical and medieval times, are described in the History of Shorthand by T. Anderson, London, 1882. 272 CRYPTOGRAPHS AND CIPHERS. [CH. XI The following cipher is said to have been employed by Marie Antoinette* . I take it that it was used in the method indicated on page 265 AB A O B P C Q D R E S F T G V H X I Y L Z M N CD M Z A N B O C P D Q E R F S G T H V I X L Y EF L N M O A P B Q C R D S E T F V G X H Y I Z GH I N L O M P A Q B R C S D T E V F X G Y H Z IL H N I O L P M Q A R B S C T D V E X F Y G Z MN G N H O I P L Q M R A S B T C V D X E Y F Z OP F N G O H P I Q L R M S A T B V C X D Y E Z QR E N F O G P H Q I R L S M T A V B X C Y D Z ST D N E O F P G Q H R I S L T M V A X B Y C Z VX C N D O E P F Q G R H S I T L V M X A Y B Z YZ B N C O D P E Q F R G S H T I V L X M Y A Z above. If so, the first word in the communication would be rewritten according to the scheme given in the first line, a being replaced by o, and vice versâ, b by p, and so on. The second word would be rewritten according to the scheme in the second line, and so on. * The key is given, but without explanation, in Juniper Hall, by C. Hill, London, 1904, p. 13. CH. XI] CIPHERS 273 One of the modern systems is the five digit code-book cipher, to which I have already alluded. According to the general belief, it is frequently employed in certain official communications at the present day. A code dictionary is prepared in which every word likely to be used is printed, and the words are numbered consecutively 00000, 00001, . . . up, if necessary, to 99999. Thus each word is represented by a number of five digits, and there are 105 such numbers available. The message is first written down in words. Below that it is written in numbers, each word being replaced by the number corresponding to it. To each of these numbers is added some definite prearranged clue-number— the words in the dictionary being assumed to be arranged cyclically, so that if the resulting number exceeds 105 it is denoted only by the excess above 105 . The resulting numbers are sent as a message. On receipt

of a message it is divided into consecutive groups of five numbers, each group representing a word. From each number is subtracted the prearranged clue-number, and then the message can be read off by the code dictionary. When a code message is published by the Government receiving it, the construction of the sentences is usually altered before publication, so that the key may not be discoverable by anyone in possession of the code-book or who has seen the cipher message. This is a rule applicable to all cryptographs and ciphers. This is a cipher with 105 symbols, and as each symbol consists of five digits, a message of n words is denoted by 5n digits, and probably is not longer than the message when written in the ordinary way. Since however the number of words required is less than 105 , the spare numbers may be used to represent collocations of words which constantly occur, and if so the cipher message may be slightly shortened. If the clue number is the same all through the message it would be possible by not more than 105 trials to discover the message. This is not a serious risk, but, slight though it is, it can be avoided if the clue number is varied; the clue number might, for instance, be 781 for the first three words, 791 for the next five words, 801 for the next seven words, and so on. Further it may be arranged that the clue numbers shall be changed every day; thus on the seventh day of the month they might be 781, 791, &c., and on the eighth day 881, 891, &c., and so on. This cipher can however be further improved by inserting at some step, say after each mth digit, an unmeaning digit. For example, if, in the original message written in numbers, we insert a 9 after every 274 CRYPTOGRAPHS AND CIPHERS. [CH. XI seven digits we shall get a collection of words (each represented by five digits), most of which would have no connection with the original message, and probably the number of digits used in the message itself would no longer be a multiple of 5. Of course the receiver has only to reverse the process in order to read the message. It is however unnecessary to use five symbols for each word. For if we make a similar code with the twenty-six letters of the alphabet instead of the ten digits, four letters for each word or phrase would give us 264 , that is, 456976 possible variations. Thus the message would be shorter and the power of the code increased. Further, if we like to use the ten digits and the twenty-six letters of the alphabet—all of which are easily telegraphed—we could, by only using three symbols, obtain 363 , that is, 46656 possible words, which would be sufficient for all practical purposes. This code, at any rate with these modifications, is undecipherable by strangers, but it has the disadvantages that those who use it must always have the code dictionary available, and that it takes a considerable time to code or decode a communication. For practical purposes its use would be confined to communications which could be deciphered at leisure in an office, It is especially suitable in the case of communications between officials, each supplied with a competent staff of secretaries or clerks—as from an ambassador to his chief, or a commander in the field to his war office. It is an excellent example

of a cipher of the first type, but it is not clear that it possesses any superiority over some of the simple ciphers of the third type. One of the best known writers on the subject of cryptographs and ciphers is E.A. Poe, indeed probably a good many readers have made their first acquaintance with a cipher in his story of The Gold Bug, the interest of which turns on reading a simple cipher of the first type. In earlier times J. Tritheim of Spanheim, G. Porta of Naples, Cardan, Niceron, and J. Wilkins occupied much the same position, while whenever ciphers were freely used skilful decipherers seem to have arisen. Poe wrote an essay on cryptography in which he said that it may be roundly asserted that human ingenuity cannot concoct a cipher which human ingenuity cannot resolve—a conclusion which is hardly justified by the known facts. In an earlier article he once made a similar remark so far as ciphers of the first class are concerned, with the implied limitation that only 26 symbols may be used. In this sense the observation is correct. His assertion excited some attention, and numerous CH. XI] CIPHERS 275 communications in cipher were sent to him. More than one of his correspondents did not play the game fairly, not only employing foreign languages, but using several different ciphers in the same communication. Nevertheless he resolved all except one; and he proved that this last was a fraud, being merely a jargon of random characters, having no meaning whatever. CHAPTER XII. HYPER-SPACE† . I propose to devote the remaining pages to the consideration, from the point of view of a mathematician, of certain properties of space, time, and matter, and to a sketch of some hypotheses as to their nature. I shall not discuss the metaphysical theories that profess to † On the possibility of the existence of space of more than three dimensions see C.H. Hinton, Scientific Romances, London, 1886, a most interesting work, from which I have derived much assistance in compiling the earlier part of this chapter; his later work, The Fourth Dimension, London, 1904, may be also consulted. See also G.F. Rodwell, Nature, May 1, 1873, vol. viii, pp. 8, 9; and E.A. Abbott, Flatland, London, 1884. The theory of Non-Euclidean geometry is due primarily to Lobatschewsky, Geometrische Untersuchungen zur Theorie der Parallellinien, Berlin, 1840 (originally given in a lecture in 1826); to Gauss (ex. gr. letters to Schumacher, May 17, 1831, July 12, 1831, and Nov. 28, 1846, printed in Gauss's collected works); and to J. Bolyai, Appendix to the first volume of his father's Tentamen, MarosVásárkely, 1832; though the subject had been discussed by J. Saccheri as long ago as 1733: its development was mainly the work of G.F.B. Riemann, Ueber die Hypothesen welche der Geometrie zu Grunde liegen, written in 1854, Göttinger Abhandlungen, 1866–7, vol. xiii, pp. 131–152 (translated in Nature, May 1 and 8, 1873, vol. viii, pp. 14–17, 36–37); H.L.F. von Helmholtz, Göttinger Nachrichten, June 3, 1868, pp. 193–221; and E. Beltrami, Saggio di Interpretazione della Geometria non-Euclidea, Naples, 1868, and the Annali di Matematica, series 2, vol. ii, pp. 232–255: see an article by von Helmholtz in the Academy, Feb. 12, 1870, vol. i, pp.

128–131. Within the last twenty-five years the theory has been treated by several mathematicians. A bibliography of hyper-space, compiled by G.B. Halsted, appeared in the American Journal of Mathematics, vol. i (1878), pp. 261–276, 384–385; and vol. ii (1879), pp. 65–70. 276 CH. XII] HYPER-SPACE. 277 account for the origin of our conceptions of them, for these theories lead to no practical result and rest on assertions which are incapable of definite proof—a foundation which does not commend itself to a scientific student. Space, time, and matter cannot be defined; but the means of measuring them and the investigation of their properties fall within the domain of mathematics. I devote this chapter to considerations connected with space, leaving the subjects of time and mass to the following two chapters. I shall confine my remarks on the properties of space to two speculations which recently have attracted considerable attention. These are (i) the possibility of the existence of space of more than three dimensions, and (ii) the possibility of kinds of geometry, especially of two dimensions, other than those which are treated in the usual text-books. These problems are related. The term hyper-space was used originally of space of more than three dimensions, but now it is often employed to denote also any Non-Euclidean space. I attach the wider meaning to it, and it is in that sense that this chapter is on the subject of hyper-space. In regard to the first of these questions, the conception of a world of more than three dimensions is facilitated by the fact that there is no difficulty in imagining a world confined to only two dimensions—which we may take for simplicity to be a plane, though equally well it might be a spherical or other surface. We may picture the inhabitants of flatland as moving either on the surface of a plane or between two parallel and adjacent planes. They could move in any direction along the plane, but they could not move perpendicularly to it, and would have no consciousness that such a motion was possible. We may suppose them to have no thickness, in which case they would be mere geometrical abstractions: or, preferably, we may think of them as having a small but uniform thickness, in which case they would be realities. Several writers have amused themselves by expounding and illustrating the conditions of life in such a world. To take a very simple instance, in flatland—or any even dimensional space—a knot is impossible, a simple alteration which alone would make some difference in the experience of the inhabitants as compared with our own. If an inhabitant of flatland was able to move in three dimensions, he would be credited with supernatural powers by those who were unable so to move; for he could appear or disappear at will, could (so far as they could tell) create matter or destroy it, and would be free from so 278 HYPER-SPACE. [CH. XII many constraints to which the other inhabitants were subject that his actions would be inexplicable by them. We may go one step lower, and conceive of a world of one dimension—like a long tube—in which the inhabitants could move only forwards and backwards. In such a universe there would be lines of varying

lengths, but there could be no geometrical figures. To those who are familiar with space of higher dimensions, life in line-land would seem somewhat dull. It is commonly said that an inhabitant could know only two other individuals; namely, his neighbours, one on each side. If the tube in which he lived was itself of only one dimension, this is true; but we can conceive an arrangement of tubes in two or three dimensions, where an occupant would be conscious of motion in only one dimension, and yet which would permit of more variety in the number of his acquaintances and conditions of existence. Our conscious life is in three dimensions, and naturally the idea occurs whether there may not be a fourth dimension. No inhabitant of flatland could realize what life in three dimensions would mean, though, if he evolved an analytical geometry applicable to the world in which he lived, he might be able to extend it so as to obtain results true of that world in three dimensions which would be to him unknown and inconceivable. Similarly we cannot realize what life in four dimensions is like, though we can use analytical geometry to obtain results true of that world, or even of worlds of higher dimensions. Moreover the analogy of our position to the inhabitants of flatland enables us to form some idea of how inhabitants of space of four dimensions would regard us. Just as the inhabitants of flatland might be conceived as being either mere geometrical abstractions, or real and of a uniform thickness in the third dimension, so, if there is a fourth dimension, we may be regarded either as having no thickness in that dimension, in which event we are mere (geometrical) abstractions—as indeed idealist philosophers have asserted to be the case—or as having a uniform thickness in that dimension, in which event we are living in four dimensions although we are not conscious of it. In the latter case it is reasonable to suppose that the thickness in the fourth dimension of bodies in our world is small and possibly constant; it has been conjectured also that it is comparable with the other dimensions of the molecules of matter, and if so it is possible that the constitution of matter and its fundamental properties may supply experimental data which will give a physical CH. XII] HYPER-SPACE. 279 basis for proving or disproving the existence of this fourth dimension. If we could look down on the inhabitants of flatland we could see their anatomy and what was happening inside them. Similarly an inhabitant of four-dimensional space could see inside us. An inhabitant of flatland could get out of a room, such as a rectangle, only through some opening, but, if for a moment he could step into three dimensions, he could reappear on the other side of any boundaries placed to retain him. Similarly, if we came across persons who could move out of a closed prison-cell without going through any of the openings in it, there might be some reason for thinking that they did it by passing first in the direction of the fourth dimension and then back again into our space. This however is unknown. Again, if a finite solid was passed slowly through flatland, the inhabitants would be conscious only of that part of it which was in their plane. Thus they would see the shape of the

object gradually change and ultimately vanish. In the same way, if a body of four dimensions was passed through our space, we should be conscious of it only as a solid body, namely, the section of the body by our space, whose form and appearance gradually changed and perhaps ultimately vanished. It has been suggested that the birth, growth, life, and death of animals may be explained thus as the passage of finite four-dimensional bodies through our three-dimensional space. I believe that this idea is due to Mr Hinton. The same argument is applicable to all material bodies. The impenetrability and inertia of matter are necessary consequences; the conservation of energy follows, provided that the velocity with which the bodies move in the fourth dimension is properly chosen: but the indestructibility of matter rests on the assumption that the body does not pass completely through our space. I omit the details connected with change of density as the size of the section by our space varies. We cannot prove the existence of space of four dimensions, but it is interesting to enquire whether it is probable that such space actually exists. To discuss this, first let us consider how an inhabitant of flatland might find arguments to support the view that space of three dimensions existed, and then let us see whether analogous arguments apply to our world. I commence with considerations based on geometry and then proceed to those founded on physics. 280 HYPER-SPACE. [CH. XII Inhabitants of flatland would find that they could have two triangles of which the elements were equal, element to element, and yet which could not be superposed. We know that the explanation of this fact is that, in order to superpose them, one of the triangles would have to be turned over so that its undersurface came on to the upper side, but of course such a movement would be to them inconceivable. Possibly however they might have suspected it by noticing that inhabitants of one-dimensional space might experience a similar difficulty in comparing the equality of two lines, ABC and CB'A' , each defined by a set of three points. We may suppose that the lines are equal and such that corresponding points in them could be superposed by rotation round C—a movement inconceivable to the inhabitants—but an inhabitant of such a world in moving along from A to A' would not arrive at the corresponding points in the two lines in the same relative order, and thus might hesitate to believe that they were equal. Hence inhabitants of flatland might infer by analogy that by turning one of the triangles over through three-dimensional space they could make them coincide. We have a somewhat similar difficulty in our geometry. We can construct triangles in three dimensions—such as two spherical triangles— whose elements are equal respectively one to the other, but which cannot be superposed. Similarly we may have two spirals whose elements are equal respectively, one having a right-handed twist and the other a left-handed twist, but it is impossible to make one fill exactly the same parts of space as the other does. Again, we may conceive of two solids, such as a right hand and a left hand, which are exactly similar and equal but of which one cannot be

made to occupy exactly the same position in space as the other does. Those are difficulties similar to those which would be experienced by the inhabitants of flatland in comparing triangles; and it may be conjectured that in the same way as such difficulties in the geometry of an inhabitant in space of one dimension are explicable by temporarily moving the figure into space of two dimensions by means of a rotation round a point, and as such difficulties in the geometry of flatland are explicable by temporarily moving the figure into space of three dimensions by means of a rotation round a line, so such difficulties in our geometry would disappear if we could temporarily move our figures into space of four dimensions by means of a rotation round a plane—a movement which of course is inconceivable to us. CH. XII] HYPER-SPACE. 281 Next we may enquire whether the hypothesis of our existence in a space of four dimensions affords an explanation of any difficulties or apparent inconsistencies in our physical science* . The current conception of the luminiferous ether, the explanation of gravity, and the fact that there are only a finite number of kinds of matter, all the atoms of each kind being similar, present such difficulties and inconsistencies. To see whether the hypothesis of a four-dimensional space gives any aid to their elucidation, we shall do best to consider first the analogous problems in two dimensions. We live on a solid body, which is nearly spherical, and which moves round the sun under an attraction directed to it. To realize a corresponding life in flatland we must suppose that the inhabitants live on the rim of a (planetary) disc which rotates round another (solar) disc under an attraction directed towards it. We may suppose that the planetary world thus formed rests on a smooth plane, or other surface of constant curvature; but the pressure on this plane and even its existence would be unknown to the inhabitants, though they would be conscious of their attraction to the centre of the disc on which they lived. Of course they would be also aware of the bodies, solid, liquid, or gaseous, which were on its rim, or on such points of its interior as they could reach. Every particle of matter in such a world would rest on this plane medium. Hence, if any particle was set vibrating, it would give up a part of its motion to the supporting plane. The vibrations thus caused in the plane would spread out in all directions, and the plane would communicate vibrations to any other particles resting on it. Thus any form of energy caused by vibrations, such as light, radiant heat, electricity, and possibly attraction, could be transmitted from one point to another without the presence of any intervening medium which the inhabitants could detect. If the particles were supported on a uniform elastic plane film, the intensity of the disturbance at any other point would vary inversely as the distance of the point from the source of disturbance; if on a uniform elastic solid medium, it would vary inversely as the square of that distance. But, if the supporting medium was vibrating, then, * See a note by myself in the Messenger of Mathematics, Cambridge, 1891, vol. xxi, pp. 20–24, from which the above argument is extracted. The question has

been treated by Mr Hinton on similar lines. 282 HYPER-SPACE. [CH. XII wherever a particle rested on it, some of the energy in the plane would be given up to that particle, and thus the vibrations of the intervening medium would be hindered when it was associated with matter. If the inhabitants of this two-dimensional world were sufficiently intelligent to reason about the manner in which energy was transmitted they would be landed in a difficulty. Possibly they might be unable to explain gravitation between two particles—and therefore between the solar disc and their disc—except by supposing vibrations in a rigid medium between the two particles or discs. Again, they might be able to detect that radiant light and heat, such as the solar light and heat, were transmitted by vibrations transverse to the direction from which they came, though they could realize only such vibrations as were in their plane, and they might determine experimentally that in order to transmit such vibrations a medium of great rigidity (which we may call ether) was necessary. Yet in both the above cases they would have also distinct evidence that there was no medium capable of resisting motion in the space around them, or between their disc and the solar disc. The explanation of these conflicting results lies in the fact that their universe was supported by a plane, of which they were necessarily unconscious, and that this rigid elastic plane was the ether which transmitted the vibrations. Now suppose that the bodies in our universe have a uniform thickness in the fourth dimension, and that in that direction our universe rests on a homogeneous elastic body whose thickness in that direction is small and constant. The transmission of force and radiant energy, without the intervention of an intervening medium, may be explained by the vibrations of the supporting space, even though the vibrations are not themselves in the fourth dimension. Also we should find, as in fact we do, that the vibrations of the luminiferous ether are hindered when it is associated with matter. I have assumed that the thickness of the supporting space is small and uniform, because then the intensity of the energy transmitted from a source to any point would vary inversely as the square of the distance, as is the case; whereas if the supporting space was a body of four dimensions, the law would be that of the inverse cube of the distance. The application of this hypothesis to the third difficulty mentioned above—namely, to show why there are in our universe only a finite number of kinds of atoms, all the atoms of each kind having in common CH. XII] HYPER-SPACE. 283 a number of sharply defined properties—will be given later* . Thus the assumption of the existence of a four-dimensional homogeneous elastic body on which our three-dimensional universe rests, affords an explanation of some difficulties in our physical science. It may be thought that it is hopeless to try to realize a figure in four dimensions. Nevertheless attempts have been made to see what the sections of such a figure would look like. If the boundary of a solid is $\phi(x, y, z) = 0$, we can obtain some idea of its form by taking a series of plane sections by planes parallel to $z = 0$, and

mentally superposing them. In four dimensions the boundary of a body would be $\phi(x, y, z, \omega) = 0$, and attempts have been made to realize the form of such a body by making models of a series of solids in three dimensions formed by sections parallel to $\omega = 0$. Again, we can represent a solid in perspective by taking sections by three co-ordinate planes. In the case of a four-dimensional body the section by each of the four co-ordinate solids will be a solid, and attempts have been made by drawing these to get an idea of the form of the body. Of course a four-dimensional body will be bounded by solids. The possible forms of regular bodies in four dimensions, analogous to polyhedrons in space of three dimensions, have been discussed by Mr Stringham† . I now turn to the second of the two problems mentioned at the beginning of the chapter: namely, the possibility of there being kinds of geometry other than those which are treated in the usual elementary text-books. This subject is so technical that in a book of this nature I can do little more than give a sketch of the argument on which the idea is based. The Euclidean system of geometry, with which alone most people are acquainted, rests on a number of independent axioms and postulates. Those which are necessary for Euclid's geometry have, within recent years, been investigated and scheduled. They include not only those explicitly given by him, but some others which he unconsciously used. If these are varied, or other axioms are assumed, we get a different series of propositions, and any consistent body of such propositions * See below, p. 317 (3). † American Journal of Mathematics, 1880, vol. iii, pp. 1–14. 284 HYPER-SPACE. [CH. XII constitutes a system of geometry. Hence there is no limit to the number of possible Non-Euclidean geometries that can be constructed. Among Euclid's axioms and postulates is one on parallel lines, which is usually stated in the form that if a straight line meets two straight lines, so as to make the two interior angles on the same side of it taken together less than two right angles, then these straight lines being continually produced will at length meet upon that side on which are the angles which are less than two right angles. Expressed in this form the axiom is far from obvious, and from early times numerous attempts have been made to prove it* . All such attempts failed, and it is now known that the axiom cannot be deduced from the other axioms assumed by Euclid. It can be replaced by other statements about parallel lines, such as that the distance between two parallel lines is always the same, but such alternative statements, though perhaps primâ facie more axiomatic, are not to be preferred to Euclid's form, since his statement brings out prominently a characteristic feature of the space with which he is concerned. The earliest conception of a body of Non-Euclidean geometry was due to the discovery, made independently by Saccheri, Lobatschewsky, and John Bolyai, that a consistent system of geometry of two dimensions can be produced on the assumption that the axiom on parallels is not true, and that through a point a number of straight (that is, geodetic) lines can be drawn parallel to a given straight line. The resulting geometry

is called hyperbolic. Riemann later distinguished between boundlessness of space and its infinity, and showed that another consistent system of geometry of two dimensions can be constructed in which all straight lines are of a finite length, so that a particle moving along a straight line will return to its original position. This leads to a geometry of two dimensions, called elliptic geometry, analogous to the hyperbolic geometry, but characterized by the fact that through a point no straight line can be drawn which, if produced far enough, will not meet any other given straight line. This can be compared with the geometry of figures drawn on the surface of a sphere. Thus according as no straight line, or only one straight line, or a pencil of straight lines can be drawn through a point parallel to a given * Some of the more interesting and plausible attempts have been collected by J. Richard in his Philosophie de Mathématiques, Paris, 1903. CH. XII] HYPER-SPACE. 285 straight line, we have three systems of geometry of two dimensions known respectively as elliptic, parabolic or homaloidal or Euclidean, and hyperbolic. In the parabolic and hyperbolic systems straight lines are infinitely long. In the elliptic they are finite. In the hyperbolic system there are no similar figures of unequal size; the area of a triangle can be deduced from the sum of its angles, which is always less than two right angles; and there is a finite maximum to the area of a triangle. In the elliptic system all straight lines are of the same finite length; any two lines intersect; and the sum of the angles of a triangle is greater than two right angles. In the elliptic system it is possible to get from one point to a point on the other side of a plane without passing through the plane, namely, by going the other way round the straight line joining the two points; thus a watch-dial moving face upwards continuously forward in a plane in a straight line in the direction from the mark vi to the mark xii will finally appear to a stationary observer with its face downwards; and if originally the mark iii was to the right of the observer it will finally be on his left hand. In spite of these and other peculiarities of hyperbolic and elliptical geometries, it is impossible to prove by observation that one of them is not true of the space in which we live. For in measurements in each of these geometries we must have a unit of distance; and if we live in a space whose properties are those of either of these geometries, and such that the greatest distances with which we are acquainted (ex. gr. the distances of the fixed stars) are immensely smaller than any unit, natural to the system, then it may be impossible for our observations to detect the discrepancies between the three geometries. It might indeed be possible by observations of the parallaxes of stars to prove that the parabolic system and either the hyperbolic or elliptic system were false, but never can it be proved by measurements that Euclidean geometry is true. Similar difficulties might arise in connection with excessively minute quantities. In short, though the results of Euclidean geometry are more exact than present experiments can verify for finite things, such as those with which we have to deal, yet for much larger things or much

smaller things or for parts of space at present inaccessible to us they may not be true. If however we go a step further and ask what is meant by saying that a geometry is true or false, I can only quote the remark of Poincaré, 286 HYPER-SPACE. [CH. XII that the selection of a geometry is really a matter of convenience, and that that geometry is the best which enables us to state the physical laws in the simplest form. This opinion has been strongly controverted, but at any rate it expresses one view of the question. The above refers only to hyper-space of two dimensions. Naturally there arises the question whether there are different kinds of NonEuclidean space of three or more dimensions. Riemann showed that there are three kinds of Non-Euclidean space of three dimensions having properties analogous to the three kinds of Non-Euclidean space of two dimensions already discussed. These are differentiated by the test whether at every point no geodetical surface, or one geodetical surface, or a fasciculus of geodetical surfaces can be drawn parallel to a given surface: a geodetical surface being defined as such that every geodetic line joining two points on it lies wholly on the surface. It may be added that each of the three systems of geometry of two dimensions described above may be deduced as properties of a surface in each of these three kinds of Non-Euclidean space of three dimensions. It is evident that the properties of Non-Euclidean space of three dimensions are deducible only by the aid of mathematics, and cannot be illustrated materially, for in order to realize or construct surfaces in Non-Euclidean space of two dimensions we think of or use models in space of three dimensions; similarly the only way in which we could construct models illustrating Non-Euclidean space of three dimensions would be by utilizing space of four dimensions. We may proceed yet further and conceive of Non-Euclidean geometries of more than three dimensions, but this remains, as yet, an unworked field. Returning to the former question of Non-Euclidean geometries, I wish again to emphasize the fact that, if the axioms enunciated by Euclid are replaced by others, it is possible to construct other consistent systems of geometry. Some of these are interesting, but those which have been mentioned above have a special importance, from the somewhat sensational fact that they lead to no results necessarily inconsistent with the properties, as far as we can observe them, of the space in which we live; we are not at present acquainted with any other systems which are consistent with our experience. CHAPTER XIII. TIME AND ITS MEASUREMENT. The problems connected with time are totally different in character from those concerning space which I discussed in the last chapter. I there stated that the life of people living in space of one dimension would be uninteresting, and that probably they would find it impossible to realize life in space of higher dimensions. In questions connected with time we find ourselves in a somewhat similar position. Mentally, we can realize a past and a future—thus going backwards and forwards— actually we go only forwards. Hence time is analogous to space of one dimension. Were our

time of two dimensions, the conditions of our life would be infinitely varied, but we can form no conception of what such a phrase means, and I do not think that any attempts have been made to work it out. I shall concern myself here mainly with questions concerning the measurement of time, and shall treat them rather from a historical than from a philosophical point of view. In order to measure anything we must have an unalterable unit of the same kind, and we must be able to determine how often that unit is contained in the quantity to be measured. Hence only those things can be measured which are capable of addition to things of the same kind. Thus to measure a length we may take a foot-rule, and by applying it to the given length as often as is necessary, we shall find how many feet the length contains. But in comparing lengths we assume as the result of experience that the length of the foot-rule is constant, or rather that any alteration in it can be determined; and, if this assumption was denied, we could not prove it, though, if numerous repetitions of 287 288 TIME AND ITS MEASUREMENT. [CH. XIII the experiment under varying conditions always gave the same result, probably we should feel no doubt as to the correctness of our method. It is evident that the measurement of time is a more difficult matter. We cannot keep a unit by us in the same way as we can keep a footrule; nor can we repeat the measurement over and over again, for time once passed is gone for ever. Hence we cannot appeal directly to our sensations to justify our measurement. Thus, if we say that a certain duration is four hours, it is only by a process of reasoning that we can show that each of the hours is of the same duration. The establishment of a scientific unit for measuring durations has been a long and slow affair. The process seems to have been as follows. Originally man observed that certain natural phenomena recurred after the interval of a day, say from sunrise to sunrise. Experience—for example, the amount of work that could be done in it—showed that the length of every day was about the same, and, assuming that this was accurately so, man had a unit by which he could measure durations. The present subdivision of a day into hours, minutes, and seconds is artificial, and apparently is derived from the Babylonians. Similarly a month and a year are natural units of time though it is not easy to determine precisely their beginnings and endings. So long as men were concerned merely with durations which were exact multiples of these units or which needed only a rough estimate, this did very well; but as soon as they tried to compare the different units or to estimate durations measured by part of a unit they found difficulties. In particular it cannot have been long before it was noticed that the duration of the same day differed in different places, and that even at the same place different days differed in duration at different times of the year, and thus that the duration of a day was not an invariable unit. The question then arises as to whether we can find a fixed unit by which a duration can be measured, and whether we have any assurance that the seconds and minutes used to-day for that purpose are all

of equal duration. To answer this we must see how a mathematician would define a unit of time. Probably he would say that experience leads us to believe that, if a rigid body is set moving in a straight line without any external force acting on it, it will go on moving in that line; and those times are taken to be equal in which it passes over equal spaces: similarly, if it is set rotating about a principal axis passing CH. XIII] TIME AND ITS MEASUREMENT. 289 through its centre of mass, those times are taken to be equal in which it turns through equal angles. Our experiences are consistent with this statement, and that is as high an authority as a mathematician hopes to get. The spaces and the angles can be measured, and thus durations can be compared. Now the earth may be taken roughly as a rigid body rotating about a principal axis passing through its centre of mass, and subject to no external forces affecting its rotation: hence the time it takes to turn through four right angles, i.e. through 360◦ , is always the same; this is called a sidereal day: the time to turn through one twenty-fourth part of 360◦ , i.e. through 15◦ , is an hour: the time to turn through one-sixtieth part of 15◦ , i.e. through 15’ , is a minute: and so on. If, by the progress of astronomical research, we find that there are external forces affecting the rotation of the earth, mathematics would have to be invoked to find what the time of rotation would be if those forces ceased to act, and this would give us a correction to be applied to the unit chosen. In the same way we may say that although an increase of temperature affects the length of a foot-rule, yet its change of length can be determined, and thus applied as a correction to the foot-rule when it is used as the unit of length. As a matter of fact there is reason to think that the earth takes about one sixty-sixth of a second longer to turn through four right angles now than it did 2500 years ago, and thus the duration of a second is just a trifle longer today than was the case when the Romans were laying the foundations of the power of their city. The sidereal day can be determined only by refined astronomical observations and is not a unit suitable for ordinary purposes. The relations of civil life depend mainly on the sun, and he is our natural time keeper. The true solar day is the time occupied by the earth in making one revolution on its axis relative to the sun; it is true noon when the sun is on the meridian. Owing to the motion of the sun relative to the earth, the true solar day is about four minutes longer than a sidereal day. The true solar day is not however always of the same duration. This is inconvenient if we measure time by clocks (as now for nearly two centuries has been usual in Western Europe) and not by sun-dials, and therefore we take the average duration of the true solar day as the measure of a day: this is called the mean solar day. Moreover 290 TIME AND ITS MEASUREMENT. [CH. XIII to define the noon of a mean solar day we suppose a point to move uniformly round the ecliptic coinciding with the sun at each apse, and further we suppose a fictitious sun, called the mean sun, to move in the celestial equator so that its distance from the first point of Aries is the same as that of this

point: it is mean noon when this mean sun is on the meridian. The mean solar day is divided into hours, minutes, and seconds; and these are the usual units of time in civil life. The time indicated by our clocks and watches is mean solar time; that marked on ordinary sun-dials is true solar time. The difference between them is the equation of time: this may amount at some periods of the year to a little more than a quarter of an hour. In England we take the Greenwich meridian as our origin for longitudes, and instead of local mean solar time we take Greenwich mean solar time as the civil standard. Of course mean time is a comparatively recent invention. The French were the last civilized nation to abandon the use of true time: this was in 1816. Formerly there was no common agreement as to when the day began. In parts of ancient Greece and in Japan the interval from sunrise to sunset was divided into 12 hours, and that from sunset to sunrise into 12 hours. The Jews, Chinese, Athenians, and, for a long time, the Italians, divided their day into 24 hours, beginning at the hour of sunset, which of course varies every day: this method is said to be still used in certain villages near Naples, except that the day begins half-an-hour after sunset—the clocks being re-set once a week. Similarly the Babylonians, Assyrians, Persians, and until recently the modern Greeks and the inhabitants of the Balearic Islands counted the twenty-four hours of the day from sunrise. Until the middle of last century, the inhabitants of Basle reckoned the twenty-four hours from our 11.0 p.m. The ancient Egyptians and Ptolemy counted the twenty-four hours from noon: this is the practice of modern astronomers. In Western Europe the day is taken to begin at midnight—as was first suggested by Hipparchus—and is divided into two equal periods of twelve hours each. The week of seven days is an artificial unit of time. It had its origin in the East, and was introduced into the West by the Roman emperors, and, except during the French Revolution, has been subsequently in general use among civilized races. The names of the days are derived from the seven astrological planets, arranged, as was customary, CH. XIII] TIME AND ITS MEASUREMENT. 291 in the order of their apparent times of rotation round the earth, namely, Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon. The twenty-four hours of the day were dedicated successively to these planets: and the day was consecrated to the planet of the first hour. Thus if the first hour was dedicated to Saturn, the second would be dedicated to Jupiter, and so on; but the day would be Saturn’s day. The twenty-fourth hour of Saturn’s day would be dedicated to Mars, thus the first hour of the next day would belong to the Sun; and the day would be Sun’s day. Similarly the next day would be Moon’s day; the next, Mars’s day; the next, Mercury’s day: the next, Jupiter’s day; and the next, Venus’s day. The astronomical month is a natural unit of time depending on the motion of the moon, and containing about 29 1 2 days. The months of the calendar have been evolved gradually as convenient divisions of time, and their history is given in numerous astronomies. In the original Julian arrangement the months

in a leap year contained alternately 31 and 30 days, while in other years February had 29 days. This was altered by Augustus in order that his month should not be inferior to one named after his uncle. The solar tropical year is another natural unit of time. According to a recent determination, it contains 365.242216 days, that is, 365d. 5 h. 48m. 47s..4624. The Egyptians knew that it contained between 365 and 366 days, but the Romans did not profit by this information, for Numa is said to have reckoned 355 days as constituting a year—extra months being occasionally intercalated, so that the seasons might recur at about the same period of the year. In 46 b.c. Julius Caesar decreed that thenceforth the year should contain 365 days, except that in every fourth or leap year one additional day should be introduced. He ordered this rule to come into force on January 1, 45 b.c. The change was made on the advice of Sosigenes of Alexandria. It must be remembered that the year 1 a.d. follows immediately 1 b.c., that is, there is no year 0, and thus 45 b.c. would be a leap year. All historical dates are given now as if the Julian calendar was reckoned backwards as well as forwards from that year* . As a matter of fact, owing to a mistake in the original decree, the Romans, during the * Herschel, Astronomy, London, 11th ed. 1871, arts. 916–919. 292 TIME AND ITS MEASUREMENT. [CH. XIII first 36 years after 45 b.c., intercalated the extra day every third year, thus producing an error of 3 days. This was remedied by Augustus, who directed that no intercalation of an extra day should be made in any of the twelve years a.u.c. 746 to 757 inclusive, but that the intercalation should be again made in the year a.u.c. 761 (that is, 8 a.d.) and every succeeding fourth year. The Julian calendar made the year, on an average, contain 365.25 days. The actual value is, very approximately, 365.242216 days. Hence the Julian year is too long by about 11 1 4 minutes: this produces an error of nearly one day in 128 years. If the extra day in every thirtysecond leap year had been omitted—as was suggested by some unknown Persian astronomer—the error would have been less than one day in 100,000 years. It may be added that Sosigenes was aware that his rule made the year slightly too long. The error in the Julian calendar of rather more than eleven minutes a year gradually accumulated, until in the sixteenth century the seasons arrived some ten days earlier than they should have done. In 1582 Gregory XIII corrected this by omitting ten days from that year, which therefore contained only 355 days. At the same time he decreed that thenceforth every year which was a multiple of a century should be or not be a leap year according as the multiple was or was not divisible by four. The fundamental idea of the reform was due to Lilius, who died before it was carried into effect. The work of framing the new calendar was entrusted to Clavius, who explained the principles and necessary rules in a prolix but accurate work* of over 700 folio pages. The plan adopted was due to a suggestion of Pitatus made in 1552 or perhaps 1537: the alternative and more accurate proposal of Stöffler, made in 1518, to omit one day in every 134 years being rejected by Lilius

and Clavius for reasons which are not known. Clavius believed the year to contain 365.2425432 days, but he framed his calendar so that a year, on the average, contained 365.2425 days, which he thought to be wrong by one day in 3323 years: in reality it is a trifle more accurate than this, the error amounting to one day in about 3600 years. The change was unpopular, but Riccioli† tells us that, as those * Romani Calendarii a Greg. XIII, restituti Explicatio, Rome, 1603. † Chronologia Reformata, Bonn, 1669, vol. ii, p. 206. CH. XIII] TIME AND ITS MEASUREMENT. 293 miracles which take place on fixed dates—ex. gr. the liquefaction of the blood of S. Januarius—occurred according to the new calendar, the papal decree was presumed to have a divine sanction—Deo ipso huic correctioni Gregorianae subscribente—and was accepted as a necessary evil. In England a bill to carry out the same reform was introduced in 1584, but was withdrawn after being read a second time; and the change was not finally effected till 1752, when eleven days were omitted from that year. In Roman Catholic countries the new style was adopted in 1582. In Scotland the change was made in 1600. In the German Lutheran States it was made in 1700. In England, as I have said above, it was introduced in 1752; and in Ireland it was made in 1782. It is well known that the Greek Church still adheres to the Julian calendar. The Mohammedan year contains 12 lunar months, or 354 1 3 days, and thus has no connection with the seasons. The Gregorian change in the calendar was introduced in order to keep Easter at the right time of year. The date of Easter depends on that of the vernal equinox, and as the Julian calendar made the year of an average length of 365.25 days instead of 365.242216 days, the vernal equinox came earlier and earlier in the year, and in 1582 had regreded to within about ten days of February. The rule for determining Easter is as follows* . In 325 the Nicene Council decreed that the Roman practice should be followed; and after 463 (or perhaps, 530) the Roman practice required that Easter-day should be the first Sunday after the full moon which occurs on or next following the vernal equinox—full moon being assumed to occur on the fourteenth day from the day of the preceding new moon (though as a matter of fact it occurs on an average after an interval of rather more than 14 3 4 days), and the vernal equinox being assumed to fall on March 21 (though as a matter of fact it sometimes falls on March 22). This rule and these assumptions were retained by Gregory on the ground that it was inexpedient to alter a rule with which so many traditions were associated; but, in order to save disputes as to the exact instant of the occurrence of the new moon, a mean sun and a mean moon defined by Clavius were used in applying the rule. One consequence of using this mean sun and mean moon and giving an * De Morgan, Companion to the Almanac, London, 1845, pp. 1–36; Ibid., 1846, pp. 1–10. 294 TIME AND ITS MEASUREMENT. [CH. XIII artificial definition of full moon is that it may happen, as it did in 1818 and 1845, that the actual full moon occurs on Easter Sunday. In the British Act, 24 Geo. II. cap. 23, the

explanatory clause which defines full moon is omitted, but practically full moon has been interpreted to mean the Roman ecclesiastical full moon; hence the Anglican and Roman rules are the same. Until 1774 the German Lutheran States employed the actual sun and moon. Had full moon been taken to mean the fifteenth day of the moon, as is the case in the civil calendar, then the rule might be given in the form that Easter-day is the Sunday on or next after the calendar full moon which occurs next after March 21. Assuming that the Gregorian calendar and tradition are used, there still remains one point in this definition of Easter which might lead to different nations keeping the feast at different times. This arises from the fact that local time is introduced. For instance the difference of local time between Rome and London is about 50 minutes. Thus the instant of the first full moon next after the vernal equinox might occur in Rome on a Sunday morning, say at 12.30 a.m., while in England it would still be Saturday evening, 11.40 p.m., in which case our Easter would be one week earlier than at Rome. Clavius foresaw the difficulty, and the Roman Communion all over the world keep Easter on that day of the month which is determined by the use of the rule at Rome. But presumably the British Parliament intended time to be determined by the Greenwich meridian, and if so the Anglican and Roman dates for Easter might differ by a week; whether such a case has ever arisen or been discussed I do not know, and I leave to ecclesiastics to say how it should be settled. The usual method of calculating the date on which Easter-day falls in any particular year is involved, and possibly the following simple rule* may be unknown to some of my readers. Let m and n be numbers as defined below. (i) Divide the number of the year by 4, 7, 19; and let the remainders be a, b, c, respectively. (ii) Divide 19c + m by 30, and let d be the remainder. (iii) Divide 2a + 4b + 6d + n by 7, and let e be the remainder. (iv) Then the Easter full moon occurs d days after March 21; and Easter-day is the (22 + d + e)th of March or the (d + e − 9)th day of April, except that if the calculation gives d = 29 and e = 6 (as happens in 1981) then * It is due to Gauss, and his proof is given in Zach's Monatliche Correspondenz, August, 1800, vol. ii, pp. 221–230. CH. XIII] TIME AND ITS MEASUREMENT. 295 Easter-day is on April 19 and not on April 26, and if the calculation gives d = 28, e = 6, and also c > 10 (as happens in 1954) then Easterday is on April 18 and not on April 25, that is, in these two cases Easter falls one week earlier than the date given by the rule. These two exceptional cases cannot occur in the Julian calendar, and in the Gregorian calendar they occur only very rarely. It remains to state the values of m and n for the particular period. In the Julian calendar we have m = 15, n = 6. In the Gregorian calendar we have, from 1582 to 1699 inclusive, m = 22, n = 2; from 1700 to 1799, m = 23, n = 3; from 1800 to 1899, m = 23, n = 4; from 1900 to 2099, m = 24, n = 5; from 2100 to 2199, m = 24, n = 6; from 2200 to 2299, m = 25, n = 0; from 2300 to 2399, m = 26, n = 1; and from 2400 to 2499, m = 25, n = 1. Thus for the year 1908 we have m = 24, n = 5; hence a = 0, b = 4, c = 8; d = 26; and e = 2: therefore

Easter Sunday will be on the 19th of April. After the year 4200 the form of the rule will have to be slightly modified. The dominical letter and the golden number of the ecclesiastical calendar can be at once determined from the values of b and c. The epact, that is, the moon's age at the beginning of the year, can be also easily calculated from the above data in any particular case; the general formula was given by Delambre, but its value is required so rarely by any but professional astronomers and almanack-makers that it is unnecessary to quote it here. We can evade the necessity of having to recollect the values of m and n by noticing that, if N is the given year, and if {N/x} denotes the integral part of the quotient when N is divided by x, then m is the remainder when 15 + ξ is divided by 30, and n is the remainder when 6 + η is divided by 7: where, in the Julian calendar, ξ = 0, and η = 0; and, in the Gregorian calendar, ξ = {N/100} − {N/400} − {N/300}, and η = {N/100} − {N/400} − 2. If we use these values of m and n, and if we put for a, b, c, their values, namely, a = N −4{N/4}, b = N −7{N/7}, c = N −19{N/19}, the rule given on the preceding page takes the following form. "Divide 19N − {N/19} + 15 + ξ by 30, and let the remainder be d. Next divide 6(N + d + 1) − {N/4} + η by 7, and let the remainder be e. Then Easter full moon is on the dth day after March 21, and Easter-day is on the (22 + d + e)th of March or the (d + e − 9)th of April as the case may be; except that if the calculation gives d = 29, and e = 6, 296 TIME AND ITS MEASUREMENT. [CH. XIII or if it gives d = 28, e = 6, and c > 10, then Easter-day is on the (d + e − 16)th of April." Thus, if N = 1899, we divide 19(1899)−99+15+(18−4−6) by 30, which gives d = 5, and then we proceed to divide 6(1899 + 5 + 1) − 474 +(18−4−2) by 7, which gives e = 6: therefore Easter-day is on April 2. The above rules cover all the cases worked out with so much labour by Clavius and others* . I may add here a rule, quoted by Zeller, for determining the day of the week corresponding to any given date. Suppose that the pth day of the qth month of the year N anno domini is the rth day of the week, reckoned from the preceding Saturday. Then r is the remainder when p + 2q + {3(q + 1)/5} + N + {N/4} − η is divided by 7; provided January and February are reckoned respectively as the 13th and 14th months of the preceding year. For instance, Columbus first landed in the New World on Oct. 12, 1492. Here p = 12, q = 10, N = 1492, η = 0. If we divide 12 + 20 + 6 + 1492 + 373 by 7 we get r = 6; hence it was on a Friday. Again, Charles I was executed on Jan. 30, 1649. Here p = 30, q = 13, N = 1648, η = 0, and we find r = 3; hence it was on a Tuesday. As another example, the battle of Waterloo was fought on June 18, 1815. Here p = 18, q = 6, N = 1815, η = 12, and we find r = 1; hence it took place on a Sunday. I proceed now to give a short account of some of the means of measuring time which were formerly in use. Of devices for measuring time, the earliest of which we have any positive knowledge are the styles or gnomons erected in Egypt and Asia Minor. These were sticks placed vertically in a horizontal piece of ground, and surrounded by three concentric circles, such that every two hours the end of the shadow of

the stick passed from one circle to another. Some of these have been found at Pompeii and Tusculum. The sun-dial is not very different in principle. It consists of a rod or style fixed on a plate or dial; usually, but not necessarily, the style is placed so as to be parallel to the axis of the earth. The shadow of the * Most of the above-mentioned facts about the calendar are taken from Delambre's Astronomie, Paris, 1814, vol. iii, chap. xxxviii; and his Histoire de l'astronomie moderne, Paris, 1821, vol. i, chap. i: see also A. De Morgan, The Book of Almanacs, London, 1851; S. Butcher, The Ecclesiastical Calendar, Dublin, 1877; and C. Zeller, Acta Mathematica, Stockholm, 1887, vol. ix, pp. 131–136: on the chronological details see J.L. Ideler, Lehrbuch der Chronologie, Berlin, 1831. CH. XIII] TIME AND ITS MEASUREMENT. 297 style cast on the plate by the sun falls on lines engraved there which are marked with the corresponding hours. The earliest sun-dial, of which I have read, is that made by Berosus in 540 b.c. One was erected by Meton at Athens in 433 b.c. The first sun-dial at Rome was constructed by Papirius Cursor in 306 b.c. Portable sun-dials, with a compass fixed in the face, have been long common in the East as well as in Europe. Other portable instruments of a similar kind were in use in medieval Europe, notably the sun-rings, hereafter described, and the sun-cylinders* . I believe it is not generally known that a sun-dial can be so constructed that the shadow will, for a short time near sunrise and sunset, move backwards on the dial† . This was discovered by Nonez. The explanation is as follows. Every day the sun appears to describe a circle round the pole, and the line joining the point of the style to the sun describes a right cone whose axis points to the pole. The section of this cone by the dial is the curve described by the extremity of the shadow, and is a conic. In our latitude the sun is above the horizon for only part of the twenty-four hours, and therefore the extremity of the shadow of the style describes only a part of this conic. Let QQ' be the arc described by the extremity of the shadow of the style from sunrise at Q to sunset at Q' , and let S be the point of the style and F the foot of the style, i.e. the point where the style meets the plane of the dial. Suppose that the dial is placed so that the tangents drawn from F to the conic QQ' are real, and that P and P ' , the points of contact of these tangents, lie on the arc QQ' . If these two conditions are fulfilled, then the shadow will regrede through the angle QF P as its extremity moves from Q to P, it will advance through the angle P F P' as its extremity moves from P to P ' , and it will regrede through the angle P 'F Q' as its extremity moves from P ' to Q' . If the sun's apparent diurnal path crosses the horizon—as always happens in temperate and tropical latitudes—and if the plane of the dial is horizontal, the arc QQ' will consist of the whole of one branch of a hyperbola, and the above conditions will be satisfied if F is within the space bounded by this branch of the hyperbola and its asymptotes. * Thus Chaucer in the Shipman's Tale, "by my chilindre it is prime of day," and Lydgate in the Siege of Thebes, "by my chilyndre I gan anon to see. . . that it drew to nine." † Ozanam, 1803

edition, vol. iii, p. 321; 1840 edition, p. 529. 298 TIME AND ITS MEASUREMENT. [CH. XIII As a particular case, in a place of latitude 12◦ N. on a day when the sun is in the northern tropic (of Cancer) the shadow on a dial whose face is horizontal and style vertical will move backwards for about two hours between sunrise and noon. If, in the case of a given sun-dial placed in a certain position, the conditions are not satisfied, it will be possible to satisfy them by tilting the sun-dial through an angle properly chosen. This was the rationalistic explanation, offered by the French encyclopaedists, of the miracle recorded in connection with Isaiah and Hezekiah* . Suppose, for instance, that the style is perpendicular to the face of the dial. Draw the celestial sphere. Suppose that the sun rises at M and culminates at N, and let L be a point between M and N on the sun's diurnal path. Draw a great circle to touch the sun's diurnal path MLN at L, let this great circle cut the celestial meridian in A and A' , and of the arcs AL, A'L suppose that AL is the less and therefore is less than a quadrant. If the style is pointed to A, then, while the sun is approaching L, the shadow will regrede, and after the sun passes L the shadow will advance. Thus if the dial is placed so that a style which is normal to it cuts the meridian midway between the equator and the tropic, then between sunrise and noon on the longest day the shadow will move backwards through an angle sin−1 (cos ω sec 1 2 ω) − cot−1 {sin ω cos(l − 1 2 ω)(cos2 l − sin2 ω) − 1 2 } , where l is the latitude of the place and ω is the obliquity of the ecliptic. The above remarks refer to the sun-dials in ordinary use. In 1892 General Oliver brought out in London a dial with a solid style, the section of the style being a certain curve whose form was determined empirically by the value of the equation of time as compared with the sun's declination† . The shadow of the style on the dial gives the local mean time, though of course in order to set the dial correctly at any place the latitude of the place must be known: the dial may be also set so as to give the mean time at any other locality whose longitude relative to the place of observation is known. The sun-ring or ring-dial is another instrument for measuring solar time‡ . One of the simplest type is figured in the accompanying diagram. * 2 Kings, chap. xx, vv. 9–11. † An account of this sun-dial with a diagram was given in Knowledge, July 1, 1892, pp. 133, 134. ‡ See Ozanam, 1803 edition, vol. iii, p. 317; 1840 edition, p. 526. CH. XIII] TIME AND ITS MEASUREMENT. 299 The sun-ring consists of a thin brass band, about a quarter of an inch wide, bent into the shape of a circle, which slides between two fixed circular rims—the radii of the circles being about one inch. At one point of the band there is a hole; and when the ring is suspended from a fixed point attached to the rims so that it hangs in a vertical plane containing the sun, the light from the sun shines through this hole and makes a bright speck on the opposite inner or concave surface of the ring. On this surface the hours are marked, and, if the ring is properly adjusted, the spot of light will fall on the hour which indicates the solar time. The adjustment for the time of year is made as follows. The rims between which the band

can slide are marked on their outer or convex side with the names of the months, and the band containing the hole must be moved between the rims until the hole is opposite to that month for which the ring is being used. For determining times near noon the instrument is reliable, but for other hours in the day it is accurate only if the time of year is properly chosen, usually near one of the equinoxes. This defect may be corrected by marking the hours on a curved brass band affixed to the concave surface of the rims. I possess two specimens of rings of this kind. These 300 TIME AND ITS MEASUREMENT. [CH. XIII rings were distributed widely. Of my two specimens, one was bought in the Austrian Tyrol and the other in London. Astrolabes and sea-rings can be used as sun-rings. Clepsydras or water-clocks, and hour-glasses or sand-clocks, afford other means of measuring time. The time occupied by a given amount of some liquid or sand in running through a given orifice under the same conditions is always the same, and by noting the level of the liquid which has run through the orifice, or which remains to run through it, a measure of time can be obtained. The burning of graduated candles gives another way of measuring time, and we have accounts of those used by Alfred the Great for the purpose. Incense sticks were used by the Chinese in a similar way. Modern clocks and watches * comprise a train of wheels turned by a weight, spring, or other motive power, and regulated by a pendulum, balance, fly-wheel, or other moving body whose motion is periodic and time of vibration constant. The direction of rotation of the hands of a clock was selected originally so as to make the hands move in the same direction as the shadow on a sun-dial whose face is horizontal—the dial being situated in our hemisphere. The invention of clocks with wheels is attributed by tradition to Pacificus of Verona, circ. 850, and also to Gerbert, who is said to have made one at Magdeburg in 996: but there is reason to believe that these were sun-clocks. The earliest wheel-clock of which we have historical evidence was one sent by the Sultan of Egypt in 1232 to the Emperor Frederick II, though there seems to be no doubt that they had been made in Italy at least fifty years earlier. The oldest clock in England of which we know anything was one erected in 1288 in or near Westminster Hall out of a fine imposed on a corrupt Lord Chief Justice. The bells, and possibly the clock, were staked by Henry VIII on a throw of dice and lost, but the site was marked by a sun-dial, destroyed about sixty years ago, and bearing the inscription Discite justiciam moniti. In 1292 a clock was erected in Canterbury Cathedral at a cost of £30. One erected at Glastonbury Abbey in 1325 is at present in the Kensington Museum and is in regular action. Another made in 1326 for St Alban’s Abbey showed the astronomical phenomena, and seems to have been one of the earliest clocks that did so. One put up at Dover in 1348 is still in good working order. * See Clock and Watch Making by Lord Grimthorpe, 7th edition, London, 1883. CH. XIII] TIME AND ITS MEASUREMENT. 301 The clocks at Peterborough and Exeter were of about the same date, and portions

of them remain in situ. Most of these early clocks were regulated by horizontal balances: pendulums being then unknown. Of the elaborate clocks of a later date, that at Strasburg made by Dasypodius in 1571, and that at Lyons constructed by Lippeus in 1598, are especially famous: the former was restored in 1842, though in a manner which destroyed most of the ancient works. In 1370, Vick constructed a clock for Charles V with a weight as motive power and a vibrating escapement—a great improvement on the rough time-keepers of an earlier date. The earliest clock regulated by a pendulum seems to have been made in 1621 by a clockmaker named Harris, of Covent Garden, London, but the theory of such clocks is due to Huygens* . Galileo had discovered previously the isochronism of a pendulum, but did not apply it to the regulation of the motion of clocks. Hooke made such clocks, and possibly discovered independently this use of the pendulum: he invented or re-invented the anchor pallet. A watch may be defined as a clock which will go in any position. Watches, though of a somewhat clumsy design, were made at Nuremberg by P. Hele early in the sixteenth century—the motive power being a ribbon of steel, wound round a spindle, and connected at one end with a train of wheels which it turned as it unwound—and possibly a few similar time-pieces had been made in the previous century. By the end of the sixteenth century they were not uncommon. At this time they were usually made in the form of fanciful ornaments such as skulls, or as large pendants, but about 1620 the flattened oval form was introduced, rendering them more convenient to carry in a pocket or about the person. In the seventeenth century their construction was greatly improved, notably by the introduction of the spring balance by Huygens in 1674, and independently by Hooke in 1675—both mathematicians having discovered that small vibrations of a coiled spring, of which one end is fixed, are practically isochronous. The fusee had been used by R. Zech of Prague in 1525, but was re-invented by Hooke. Clocks and watches are usually moved and regulated in the manner indicated above. Other motive powers and other devices for regulating the motion may be met with occasionally. Of these I may mention a clock in the form of a cylinder, usually attached to another weight as * Horologium Oscillatorium, Paris, 1673. 302 TIME AND ITS MEASUREMENT. [CH. XIII in Atwood's machine, which rolls down an inclined plane so slowly that it takes twelve hours to roll down, and the highest point of the face always marks the proper hour* . A water-clock made on a somewhat similar plan is described by Ozanam† as one of the sights of Paris at the beginning of the last century. It was formed of a hollow cylinder divided into various compartments each containing some mercury, so arranged that the cylinder descended with uniform velocity between two vertical pillars on which the hours were marked at equidistant intervals. Other ingenious ways of concealing the motive power have been described in the columns of La Nature ‡ . Of such mysterious timepieces the following are not uncommon examples, and probably are known to

most readers of this book. One kind of clock consists of a glass dial suspended by two thin wires; the hands however are of metal, and the works are concealed in them or in the pivot. Another kind is made of two sheets of glass in a frame containing a spring which gives to the hinder sheet a very slight oscillatory motion–imperceptible except on the closest scrutiny–and each oscillation moves the hands through the requisite angles. Some so-called perpetual motion timepieces were described above on pages 77–78. Lastly, I have seen in France a clock the hands of which were concealed at the back of the dial, and carried small magnets; pieces of steel in the shape of insects were placed on the dial, and, following the magnets, served to indicate the time. The position of the sun relative to the points of the compass determines the solar time. Conversely, if we take the time given by a watch as being the solar time—and it will differ from it by only a few minutes at the most—and we observe the position of the sun, we can find the points of the compass§ . To do this it is sufficient to point the hour-hand to the sun, and then the direction which bisects the angle between the hour and the figure xii will point due south. For instance, if it is four o'clock in the afternoon, it is sufficient to point the hourhand (which is then at the figure iiii) to the sun, and the figure ii on the watch will indicate the direction of south. Again, if it is eight * Ozanam, 1803 edition, vol. ii, p. 39; 1840 edition, p. 212; or La Nature, Jan. 23, 1892, pp. 123, 124. † Ozanam, 1803 edition, vol. ii, p. 68; 1840 edition, p. 225. ‡ See especially the volumes issued in 1874, 1877, and 1878. § The rule is given by W.H. Richards, Military Topography, London, 1883, p. 31, though it is not stated quite correctly. I do not know who first enunciated it. CH. XIII] TIME AND ITS MEASUREMENT. 303 o'clock in the morning, we must point the hour-hand (which is then at the figure viii) to the sun, and the figure x on the watch gives the south point of the compass. Between the hours of six in the morning and six in the evening the angle between the hour and xii which must be bisected is less than 180◦ , but at other times the angle to be bisected is greater than 180◦ ; or perhaps it is simpler to say that at other times the rule gives the north point and not the south point. The reason is as follows. At noon the sun is due south, and it makes one complete circuit round the points of the compass in 24 hours. The hour-hand of a watch also makes one complete circuit in 12 hours. Hence, if the watch is held in the plane of the ecliptic with its face upwards, and the figure xii on the dial is pointed to the south, both the hour-hand and the sun will be in that direction at noon. Both move round in the same direction, but the angular velocity of the hour-hand is twice as great as that of the sun. Hence the rule. The greatest error due to the neglect of the equation of time is less than 2 ◦ . Of course in practice most people, instead of holding the face of the watch in the ecliptic, would hold it horizontal, and in our latitude no serious error would be thus introduced. In the southern hemisphere where at noon the sun is due north the rule requires modification. In such places the hour-hand of a watch (held

face upwards in the plane of the ecliptic) and the sun move in opposite directions. Hence, if the watch is held so that the figure xii points to the sun, then the direction which bisects the angle between the hour of the day and the figure xii will point due north. CHAPTER XIV. MATTER AND ETHER THEORIES. Matter, like space and time, cannot be defined, but either the statement that matter is whatever occupies space or the statement that it is anything which can be seen, touched, or weighed, suggests its more important characteristics to anyone already familiar with it. The means of measuring matter and some of its properties are treated in most text-books on mechanics, and I do not propose to discuss them. I confine the chapter to an account of some of the hypotheses by physicists as to the ultimate constitution of matter, but I exclude metaphysical conjectures, which from their nature are mere assertions incapable of proof and are not subject to mathematical analysis. The question is intimately associated with the explanation of the phenomena of attraction, light, chemistry, electricity, and other branches of physics. I commence with a list of some of the more plausible of the hypotheses formerly proposed which accounted for the obvious properties of matter, and shall then discuss how far they explain or are consistent with other facts† . The interest of the list is largely historical, for within the last few years new views as to the constitution of matter † I have based my account mainly on Recent Advances in Physical Science, by P.G. Tait, Edinburgh, 1876 (chaps, xii, xiii); and on the article Atom by J. Clerk Maxwell in the Encyclopaedia Britannica or his Collected Works, vol. ii, pp. 445– 484: see also W.M. Hicks's address, Report of the British Association (Ipswich meeting), 1895, vol. lxv, pp. 595–606. For the more recent speculations see J.J. Thomson, Electricity and Matter, Westminster, 1904, and J. Larmor, Aether and Matter, Cambridge, 1900. 304 CH. XIV] MATTER AND ETHER THEORIES. 305 have been propounded, but the details of these more recent hypotheses are so complicated and technical that only professional mathematicians can understand them. Accordingly I allude to them only briefly. I. Hypothesis of Continuous Matter. It may be supposed that matter is homogeneous and continuous, in which case there is no limit to the infinite divisibility of bodies. This view was held by Descartes* . This conjecture is consistent with the facts deducible by untrained observation, but there are many other phenomena for which it does not account; moreover there seems to be no way of reconciling such a structure of matter either with the facts of chemical changes or with the results of spectrum analysis. At any rate the theory must be regarded as extremely improbable. II. Atomic Theories. If matter is not continuous we must suppose that every body is composed of aggregates of molecules. If so, it seems probable that each such molecule is built up by the association of two or more atoms, that the number of kinds of atoms is finite, and that the atoms of any particular kind are alike. As to the nature of the atoms the following hypotheses have been made. (i) Popular Atomic Hypothesis. The popular view is

that every atom of any particular kind is a minute indivisible article possessing definite qualities, everlasting in its form and properties, and infinitely hard. This statement is plausible, but the difficulties to which it leads appear to be insuperable. In fact we have reason to think that the atoms which form a molecule are composite systems in incessant vibration at a rate characteristic of the molecule, and it is most probable that they are elastic. Newton seems to have hazarded a conjecture of this kind when he suggested† that the difficulties, connected with the fact that the velocity of sound was one-ninth greater than that required by theory, might be overcome if the particles of air were little rigid spheres whose distance from one another under normal conditions was nine times the * Descartes, Principia, vol. ii, pp. 18, 23. † Newton, Principia, bk. ii, prop. 50. 306 MATTER AND ETHER THEORIES. [CH. XIV diameter of any one of them. This was ingenious, but obviously the view is untenable, because, if such a structure of air existed, the air could not be compressed beyond a certain limit, namely, about 1/1021st part of its original volume, which has been often exceeded. The true explanation of the difficulty noticed by Newton was given by Laplace. (ii) Boscovich's Hypothesis. In 1759 Boscovich suggested* that the facts might be explained by supposing that an atom was an infinitely small indivisible mass which was a centre of force—the law of force being attractive for sensible distances, alternately attractive and repulsive for minute distances, and repulsive for infinitely small distances. In this theory all action between bodies is action at a distance. He explained the apparent extension of bodies by saying that two parts are consecutive (or similarly that two bodies are in contact) when the nearest pair of atoms in them are so close to one another that the repulsion at any point between them is sufficiently great to prevent any other atom coming between them. It is essential to the theory that the atom shall have a mass but shall not have dimensions. This hypothesis is not inconsistent with any known facts, but it has been described, perhaps not unjustly, as a mere mathematical fiction, and certainly it is opposed to the apparent indications of our senses. At any rate it is artificial, though it may be a prejudice to regard that as an argument against its adoption. To some extent this view was accepted by Faraday. Lord Kelvin, better known as Sir William Thomson, has shown† that, if we assume the existence of gravitation, then each of the above hypotheses will account for cohesion. (iii) Hypothesis of an Elastic Solid Ether. Some physicists have tried to explain the known phenomena by properties of the medium through which our impressions are derived. By postulating that all space is filled with a medium possessed of many of the characteristics of an elastic solid, it has been shown by Fresnel, Green, Cauchy, Neumann, MacCullagh, and others that a large number of the properties of light and electricity may be explained. In spite of the difficulties to which this hypothesis necessarily leads, and of its inherent improbabil- * Philosophiae naturalis Theoria redacta ad unicam Legem Virium, Vienna, 1759. † Proceedings of the Royal Society of

Edinburgh, April 21, 1862, vol. iv, pp. 604– 606. CH. XIV] MATTER AND ETHER THEORIES. 307 ity, it has been discussed by Stokes, Lamé, Boussinesq, Sarrau, Lorenz, Lord Rayleigh, and Kirchhoff. This hypothesis has been modified and rendered somewhat more plausible by von Helmholtz, Lommel, Ketteler* , and Voigt, who based their researches on the assumption of a mutual reaction between the ether and the material molecules located in it: on this view the problems connected with refraction and dispersion have been simplified. Finally, Sir William Thomson, in his Baltimore Lectures, 1885, suggested a mechanical analogue to represent the relations between matter and this ether, by which a possible constitution of the ether can be realized. He also suggested later a form of labile ether , from whose properties most of the more familiar physical phenomena can be deduced, provided the arrangement can be considered stable; a labile ether is an elastic solid, and its properties in two dimensions may be compared with those of a soap-bubble film, in three dimensions. It is, however, difficult to criticise any of these hypotheses as a theory of the constitution of matter until the arrangement of the atoms or their nature is more definitely expressed. III. Dynamical Theories. In recent years the suggestion has been made that the so-called atoms may be forms of motion (ex. gr. permanent eddies) in one elementary material known as the ether; on this view all the atoms are constituted of the same matter, but the physical conditions are different for the different kinds of atoms. It has been said that there is an initial difficulty in any such hypothesis, since the all-pervading elementary fluid must possess inertia, so that to explain matter we assume the existence of a fluid possessing one of the chief characteristics of matter. This is true as far as it goes, but it is not more unreasonable than to attribute all the fundamental properties of matter to the atoms themselves, as is done by many writers. The next paragraph contains a statement of one of the earliest attempts to formulate a dynamical atomic hypothesis. (i) The Vortex Ring Hypothesis. This hypothesis assumes that each atom is a vortex ring in an incompressible frictionless homogeneous fluid. * Theoretische Optik, Braunschweig, 1885. 308 MATTER AND ETHER THEORIES. [CH. XIV Vortex rings—though, since friction is brought into play, of an imperfect character—can be produced in air by many smokers. Better specimens can be formed by taking a cardboard box in one side of which a circular hole is cut, filling it with smoke, and hitting the opposite side sharply. The tendency of the particles forming a ring to maintain their annular connection may be illustrated by placing such a box on one side of a room in a direct line with the flame of a lighted candle on the other side. If properly aimed, the ring will travel across the room and put out the flame. If the box is filled only with air, so that the ring is not visible, the experiment is more effective. In 1858 von Helmholtz* showed that a closed vortex filament in a perfect fluid is indestructible and retains certain characteristics always unaltered. In 1867 Sir William Thomson propounded† the idea that matter

consists of vortex rings in a fluid which fills space. If the fluid is perfect we could neither create new vortex rings nor destroy those already created, and thus the permanence of the atoms is explained. Moreover the atoms would be flexible, compressible, and in incessant vibration at a definite fundamental rate. This rate is very rapid, and Sir William Thomson gave the number of vibrations per second of a sodium ring as probably being greater than 1014 . By a development of this hypothesis Prof. J.J. Thomson‡ showed, some years ago, that chemical combination may be explained. He supposed that a molecule of a compound is formed by the linking together of vortex filaments representing atoms of different elements: this arrangement may be compared with that of helices on an anchor ring. For stability not more than six filaments may be combined together, and their strengths must be equal. Another way of explaining chemical combination on the vortex atom hypothesis has been suggested by W.M. Hicks. It is known§ that a spherical mass of fluid, whose interior possesses vortex motion, can move through liquid like a rigid sphere, and he has shown that one of these spherical vortices can swallow up another, thus forming a compound element. * Crelle's Journal, 1858, vol. lv, pp. 25–55; translated by Tait in the Philosophical Magazine, June, 1867, supplement, series 4, vol. xxxiii, pp. 485–512. † Proceedings of the Royal Society of Edinburgh, Feb. 18, 1867, vol. vi, pp. 94–105. ‡ A Treatise on the Motion of Vortex Rings, Cambridge, 1883. § See a memoir by M.J.M. Hill in the Philosophical Transactions of the Royal Society, London, 1894, part i, pp. 213–246. CH. XIV] MATTER AND ETHER THEORIES. 309 (ii) The Vortex Sponge Hypothesis. Any vortex atom hypothesis labours under the difficulty of requiring that the density of the fluid ether shall be comparable with that of ordinary matter. In order to obviate this and at the same time to enable it to transmit transversal radiations Sir William Thomson suggested what has been termed, not perhaps very happily, the vortex sponge hypothesis* : this rests on the assumption that laminar motion can be propagated through a turbulently moving inviscid liquid. The mathematical difficulties connected with such motion have prevented an adequate discussion of this hypothesis, and I therefore confine myself to merely mentioning it. These hypotheses, of vortex motion in a fluid, account for the indestructibility of matter and for many of its properties. But in order to explain statical electrical attraction it would seem necessary to suppose that the ether is elastic; in other words, that an electric field must be a field of strain. If so, complete fluidity in the ether would be impossible, and hence the above theories are now regarded as untenable. (iii) The Ether-Squirts Hypothesis. Prof. Karl Pearson† has suggested another dynamical theory in which an atom is conceived as a point at which ether is pouring into our space from space of four dimensions. If an observer lived in two dimensional space filled with ether and confined by two parallel and adjacent surfaces, and if through a hole in one of these surfaces fresh ether were squirted into this space, the

variations of pressure thereby produced might give the impression of a hard impenetrable body. Similarly an ether-squirt from space of four dimensions into our space might give us the impression of matter. It seems necessary on this hypothesis to suppose that there are also ether-sinks, or atoms of negative mass; but as ether-squirts and ether-sinks would repel one another we may suppose that the latter have moved out of the universe known to our senses. By defining the mass of an atom as the mean rate at which ether is squirting into our space at that point, we can deduce the Newtonian law of gravitation, and by assuming certain periodic variations in the rate of squirting we can deduce some of the phenomena of cohesion, of chemical action, and of electromagnetism and light. But of course the * Philosophical Magazine, London, October, 1887, series 5, vol. xxiv, pp. 342–353. † American Journal of Mathematics, 1891, vol. xiii, pp. 309–362. 310 MATTER AND ETHER THEORIES. [CH. XIV hypothesis rests on the assumption of the existence of a world beyond our senses. (iv) The Electron Hypothesis. MacCullagh, in 1837 and 1839, proposed to account for optical phenomena on the assumption of an elastic ether possessing elasticity of the type required to enable it to resist rotation. This suggestion has been recently modified and extended by Dr J. Larmor* , and, as now enunciated, it accounts for many of the electrical and magnetic (as well as the optical) properties of matter. The hypothesis is however very artificial. The assumed ether is a rotationally elastic incompressible fluid. In this fluid Larmor introduces monad electric elements or electrons, which are nuclei of radial rotational strain. He supposes that these electrons constitute the basis of matter. He further supposes that an electrical current consists of a procession of these electrons, and that a magnetic particle is one in which these entities are revolving in minute orbits. Dynamical considerations applied to such a system lead to an explanation of nearly all the more obvious phenomena. By further postulating that the orbital motion of electrons in the atom constitute it a fluid vortex it is possible to apply the hydrodynamical pulsatory theory of Bjerknes or Hicks and obtain an explanation of gravitation. Thus on this view mass is explained as an electrical manifestation. Electricity in its turn is explained by the existence of electrons, that is, of nuclei of strain in the ether, which are supposed to be in incessant and rapid motion. Whilst, to render this possible, properties are attributed to the ether which are apparently inconsistent with our experience of the space it fills. Put thus, the hypothesis seems very artificial. Perhaps the utmost we can say for it is that, from some points of view, it may, so far as analysis goes, be an approximation to the true theory; in any case much work will have to be done before it can be considered established even as a working hypothesis. Most of the above was written in 1891. Since then investigations on radio-activity have opened up new avenues of conjecture which tend to strengthen the electron theory as a working hypothesis. More than thirty years ago Clerk Maxwell had shown that light and electricity were closely

connected phenomena. It was then believed that both were due to waves in the hypothetical ether, but it was supposed that the phe- * Philosophical Transactions of the Royal Society, London, 1894, pp. 719–822; 1895, pp. 695–743. CH. XIV] MATTER AND ETHER THEORIES. 311 nomena of matter on the one side and of light and electricity on the other were sharply distinguished one from the other. The differences, however, between matter and light tend to disappear as investigations proceed. In 1895 Röntgen established the existence of rays which could produce light, which had the same velocity as light, which were not affected by a magnet, and which could traverse wood and certain other opaque substances like glass. A year later Becquerel showed that uranium was constantly emitting rays which, though not affecting the eye as light, were capable of producing an image on a photographic plate. Like Röntgen rays they can go through thin sheets of metal; like heat rays they burn the skin; like electricity they generate ozone from oxygen. Passed into the air they enable it to conduct the electric current. Their speed has been measured and found to be rather more than half that of light and electricity. It was soon found that thorium possessed a similar property, but in 1903 Prof. Curie showed that radium possessed radio-activity to an extent previously unsuspected in any body, and in fact the rays were so powerful as to make the substance directly visible. Further experiments showed that numerous bodies are radio-active, but the effects are so much more marked in radium that it is convenient to use that substance for most experimental purposes. Radium gives off no less than three kinds of rays besides a radioactive emanation. In these discharges there appears to be a gradual change from what had been supposed to be an elementary form of matter to another. This leads to the belief that of the known forms of matter some, perhaps even all, are not absolutely stable. On the other hand, it may be that only radio-active bodies are unstable, and that in their disintegration we are watching the final stage in the evolution of stable and constant forms of matter. It may, however, in any case turn out that some, or perhaps all, of the so-called elements may be capable of resolution into different combinations of electrons or electricity. At an earlier date J.J. Thomson had concluded that the glow, seen when an electric current passes through a high vacuum tube, is due to a rush of minute particles across the tube. He calculated their weight, their velocity, and the charge of electricity transported by or represented by them, and found these to be constant. They were deflected like Becquerel rays. All space seems to contain them, and electricity, if not identical with them, is at least carried by them. This suggested that these minute particles might be electrons. If so, they might thus 312 MATTER AND ETHER THEORIES. [CH. XIV give the ultimate explanation of electricity as well as matter, and the atom of the chemist would be not an irreducible unit of matter, but a system comprising numerous such minute particles. These conclusions are consistent with those subsequently deduced from experiments with radium. In 1904 the hypothesis

was carried one stage further. In that year J.J. Thomson investigated the conditions of stability of certain systems of revolving particles; and on the hypothesis that an atom of matter consists of a number of particles carrying negative charges of electricity revolving in orbits within a sphere of positive electrification he deduced many of the properties of the different chemical atoms corresponding to different possible stable systems of this kind. His scheme led to results agreeing closely with the results of Mendeléeff's periodic hypothesis. An interesting consequence of this view is that Franklin's description of electricity as subtle particles pervading all bodies, may turn out to be substantially correct. It is also remarkable that corpuscles somewhat analogous to those whose existence was suggested in Newton's corpuscular theory of light should be now supposed to exist in cathode and Becquerel rays. (v) The Bubble Hypothesis* . The difficulty of conceiving the motion of matter through a solid elastic medium has been met in another way, namely, by suggesting that what we call matter is a deficiency of the ether, and that this region of deficiency can move through the ether in a manner somewhat analogous to that in which a bubble can move in a liquid. To express this in technical language we may suppose the ether to consist of an arrangement of minute uniform spherical grains piled together so closely that they cannot change their neighbours, although they can move relatively one to another. Places where the number of grains is less or greater than the number necessary to render the piling normal, move through the medium, as a wave moves through water, though the grains do not move with them. Places where the ether is in excess of the normal amount would repel one another and move away out of our ken, but places where it is below the normal amount would attract each other according to the law of gravity, and constitute particles of matter which would be indestructible. It is alleged that the theory accounts for the known phenomena of gravity, electricity, and light, provided the size of its grains is properly chosen. Reynolds has calculated that for this purpose their diameter should be rather more * O. Reynolds, Submechanics of the Universe, Cambridge, 1903. CH. XIV] THE CAUSE OF GRAVITY 313 than 5×10−18 centimetres, and that the pressure in the medium would be about 104 tons per square centimetre. This theory is in itself more plausible than the electron hypothesis, but its consequences have not yet been fully worked out. Returning from these novel hypotheses to the classical theories of matter, we may now proceed a step further. Before a hypothesis on the structure of matter can be ranked as a scientific theory we may reasonably expect it to afford some explanation of three facts. These are (a) the Newtonian law of attraction; (b) the fact that there are only a finite number of ultimate kinds of matter—such as oxygen, iron, etc.—which can be arranged in a series such that the properties of the successive members are connected by a regular law; and (c) the main results of spectrum analysis. In regard to the first point (a), we can say only that none of the

above theories are inconsistent with the known laws of attraction; and as far as the ether-squirts, the electron, and the bubble hypotheses are concerned, they have been elaborated into a form from which the gravitational law of attraction can be deduced. But we may still say that as to the cause of gravity—or indeed of force—we know nothing. Newton, in his Letters to Bentley, while declaring his ignorance of the cause of gravity, refused to admit the possibility of force acting at a finite distance through a vacuum. "You sometimes speak of gravity," said he* , "as essential and inherent to matter: pray do not ascribe that notion to me, for the cause of gravity is what I do not pretend to know." And in another place he wrote† , "'Tis inconceivable, that inanimate brute matter should (without the mediation of something else which is not material) operate upon and affect other matter without mutual contact; as it must if gravitation in the sense of Epicurus, be essential and inherent in it. . . That gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance thro' a vacuum, without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity, that I believe no man who has in * Letter dated Jan. 17, 1693. I quote from the original, which is in the Library of Trinity College, Cambridge; it is printed in the Letters to Bentley, London, 1756, p. 20. † Letter dated Feb. 25, 1693; ibid., pp. 25, 26. 314 MATTER AND ETHER THEORIES. [CH. XIV philosophical matters a competent faculty of thinking can ever fall into it. Gravity must be caused by an agent acting constantly according to certain laws, but whether this agent be material or immaterial, I have left to the consideration of my readers." I have already alluded to conjectural explanations of gravity dependent on the ether-squirts, the electron, and the bubble hypotheses. Of other conjectures as to the cause of gravity, three, which do not involve the idea of force acting at a distance, may be here mentioned: (1) The first of these conjectures was propounded by Newton in the Queries at the end of his Opticks, where he suggested as a possible explanation the existence of a stress in the ether surrounding a particle of matter* . This has been elaborated on a statical basis by Maxwell, who showed† that the stress would have to be at least 3000 times greater than that which the strongest steel would support. Sir William Thomson (Lord Kelvin) has suggested‡ a dynamical way of producing the stress by supposing that space is filled with an incompressible fluid, constantly being annihilated by each atom of matter at a rate proportional to its mass, a constant supply being kept up at an infinite distance. It is true that this avoids Maxwell's difficulty, but we have no right to introduce such sinks and sources of fluid unless we have other grounds for believing in their existence. The conclusion is that Newton's conjecture is very improbable unless we adopt the ether-squirts theory: on that hypothesis it is a plausible explanation. I should add that Maclaurin implies§ that though the above explanation was Newton's early opinion, yet his final view was that he could not

devise any tenable hypothesis about the cause of gravitation. (2) In 1782 Le Sage of Geneva suggested‖ that gravity was caused by the bombardment of streams of ultramundane corpuscles. These * Quoted by S.P. Rigaud in his Essay on the Principia, Oxford, 1838, appendix, pp. 68–70. On other guesses by Newton see Rigaud, text, pp. 61–62, and references there given. † Article Attraction, in Encyclopaedia Britannica, or Collected Works, vol. ii, p. 489. ‡ Proceedings of the Royal Society of Edinburgh, Feb. 7, 1870, vol. vii, pp. 60–63. § An Account of Sir Isaac Newton's Philosophical Discoveries, London, 1748, p. 111. ‖ Mémoires de l'Académie des Sciences for 1782, Berlin, 1784, pp. 404–432: see also the first two books of his Traité de Physique, Geneva, 1818. CH. XIV] THE CAUSE OF GRAVITY 315 corpuscles are supposed to come in all directions from space and to be so small that inter-collisions are rare. A body by itself in space would receive on an average as many blows on one side as on another, and therefore would have no tendency to move. But, if there are two bodies, each will screen the other from some of the bombarding corpuscles. Thus each body will receive more blows on the side remote from the other body than on the side turned towards it. Hence the two bodies will be impelled each towards the other. In order to make this force between two particles vary directly as the product of their masses and inversely as the square of the distance between them, Le Sage showed that it was sufficient to suppose that the mass of a body was proportional to the area of a section at right angles to the direction in which it was attracted. This requires that the constitution of a body shall be molecular, and that the distances between consecutive molecules shall be very large compared with the sizes of the molecules. On the vortex hypothesis we may suppose that the ultramundane corpuscles are vortex rings. This is ingenious, and it is possible that if the corpuscles were perfectly elastic the theory might be tenable* . But the results of Maxwell's numerical calculation show, first, that the particles must be imperfectly elastic; second, that merely to produce the effect of the attraction of the earth on a mass of one pound would require that Le Sage's corpuscles should expend energy at the rate of at least billions† of foot-pounds per second; and third, that it is probable that the effect of such a bombardment would be to raise the temperature of all bodies beyond a point consistent with our experience. Finally, it seems probable that the distance between consecutive molecules would have to be considerably greater than is compatible with the results given below. Tait summed up the objections to these two hypotheses by saying‡ , "One common defect of these attempts is. . . that they all demand some prime mover, working beyond the limits of the visible universe or inside each atom: creating or annihilating matter, giving additional speed to spent corpuscles, or in some other way supplying the exhaustion suffered in the production of gravitation. Another defect is that * See a paper by Sir William Thomson (Lord Kelvin) in the Proceedings of the Royal Society of Edinburgh, Dec. 18, 1871, vol. vii, pp. 577–589. † I use billion with the English

(and not the French) meaning, that is, a billion = 1012 . ‡ Properties of Matter, London, 1885, art. 164. 316 MATTER AND ETHER THEORIES. [CH. XIV they all make gravitation a mere difference-effect, as it were; thereby implying the presence of stores of energy absolutely gigantic in comparison with anything hitherto observed, or even suspected to exist, in the universe; and therefore demanding the most delicate adjustments, not merely to maintain the conservation of energy which we observe, but to prevent the whole solar and stellar systems from being instantaneously scattered in fragments through space. In fact, the cause of gravitation remains undiscovered." (3) There is another conjecture on the cause of gravity which I may mention* . It is possible that the attraction of one particle on another might be explained if both of them rested on a homogeneous elastic body capable of transmitting energy. This is the case if our three-dimensional universe rests in the direction of a fourth dimension on a four-dimensional homogeneous elastic body (which we may call the ether) whose thickness in the fourth dimension is small and constant. The results of spectrum analysis lead us to suppose that every molecule of matter in our universe is in constant vibration. On the above hypothesis these vibrations would cause a disturbance in the supporting space, i.e. in the ether. This disturbance would spread out uniformly in all directions; the intensity diminishing as the square of the distance from the centre of vibration, but the rate of vibration remaining unaltered. The transmission of light and radiant heat may be explained by such vibrations transversal to the direction of propagation. It is possible that gravity may be caused by vibrations in the supporting space which are wholly longitudinal or are compounded of vibrations which are partly longitudinal and partly transversal in any of the three directions at right angles to the direction of propagation. If we define the mass of a molecule as proportional to the intensity of these vibrations caused by it, then at any other point in space the intensity of the vibration there would vary as the mass of the molecule and inversely as the square of the distance from the molecule; hence, if we may assume that such vibrations of the medium spreading out from any centre would draw to that centre a particle of unit mass at any other point with a force proportional to the intensity of the vibration there, then the Newtonian law of attraction would follow. This conjecture is consistent either with Boscovich's hypothesis or with the * See an article by myself in the Messenger of Mathematics, Cambridge, 1891, vol. xxi, pp. 20–24. CH. XIV] FINITE NUMBER OF KINDS OF MATTER 317 vortex theory. It would be interesting if the results of a branch of pure mathematics so abstract as the theory of hyperspace should be found to be closely connected with one of the most fundamental problems of material science. I should sum up the effect of this discussion on gravity on the relative probabilities of the hypotheses as to the constitution of matter enumerated above, by saying that it does not enable us to discriminate between them. The fact that the number of kinds of matter (chemical

elements) is finite and the consequences of spectrum analysis are closely related and may be treated together. The results of spectrum analysis show that every molecule of any species of matter, such as hydrogen, vibrates with (so far as we can tell) exactly equal sets of periods of vibration. This then is one of the characteristics of the particular kind of matter, and it is probable that any explanation of why the molecules of each kind have a definite set of periods of vibration will account also for the fact that the number of kinds of matter is finite. Various attempts to explain why the molecules of matter are capable only of certain definite periods of vibration have been made, and it may be interesting if I give them briefly. (1) To begin with, I may note the conjecture that it depends on properties of time. This, however, is impossible, for the continuity of certain spectra proves that in these cases there is nothing which prevents the period of vibration from taking any one of millions of different values: thus no explanation dependent on the nature of time is permissible. (2) It has been suggested that there may have been a sorting agency, and only selected specimens of the infinite number of species formed originally have got into our universe. The objection to this is that no explanation is offered as to what has become of the excluded molecules. (3) The finite number of species might be explained by supposing a physical connection to exist between all the molecules in the universe, just as two clocks whose rates are nearly the same tend to go at the same rate if their cases are connected. Maxwell's objection to this is that we have no other reason for supposing that such a connection exists, but if we are living in a space of 318 MATTER AND ETHER THEORIES. [CH. XIV four dimensions as suggested above in chapter xii, this connection does exist, for all the molecules rest on one and the same body. This body is capable of transmitting vibrations, hence, no matter how the molecules were set vibrating originally, they would fall into certain groups, and all the members of each group would vibrate at the same rate. It was the possibility of obtaining thus a physical connection between the various particles in our universe that first suggested to me the idea of a supporting medium in a fourth dimension. (4) If we accept Boscovich's hypothesis or that of an elastic solid ether, and if we may lay it down as axiomatic that the mass of every sub-atom is the same, we may conceive that the number of ways of combining the sub-atoms into a permanent system is limited, and that the period of vibration depends on the form in which the sub-atoms are combined into an atom. This view is not inconsistent with any known facts. I may add that it is probable that the chemical atom is the essential vibrating system, for the sodium spectrum, to take one instance, is the same as that of all its compounds. (5) In the same way we may suppose that the vortex rings are formed so that they can have only a definite number of stable forms produced by interlinking or kinking. (6) Similarly we may modify the popular hypothesis by treating the atoms as indivisible aggregates of sub-atoms which are in all respects equal and similar, and can be

combined in only a limited number of forms which are permanent. But most of the old difficulties connected with the atoms arise again in connection with the sub-atoms. (7) I am not aware that Maxwell discussed any other hypotheses in connection with this point, but it has been suggested recently that, if the various forms of matter were evolved originally out of some one primitive material, then there may have been periodic disturbances in this matter when the atoms were being formed, such that they were produced only at some definite phase in the period* . Thus, if the disturbance is represented by the swinging of a pendulum in a resisting medium, it might be supposed that the atoms were formed at the points of maximum amplitude, and we should expect that the atoms successively thrown off would form a series having the properties of its successive members connected by a regular periodic law. * See Crookes on Mendeléeff's periodic law, Nature, Sept. 2, 1886, vol. xxxiv, pp. 423–432. CH. XIV] THE SIZE OF MOLECULES OF MATTER. 319 This conjecture, when worked out in some detail, led to the conclusion that some elements which ought to have appeared in the series were missing, but it was possible to predict their properties and to suggest the substances with which they were most likely to be found in combination. Guided by these theoretical conclusions a careful chemical analysis revealed the fact that such elements did exist. That this hypothesis has led to new discoveries is something in its favour, but I do not wish to be understood to say that it is a theory which leads to results that have been verified subsequently. I should say rather that we have obtained an analogy which is sufficiently like the truth to suggest new discoveries. Such analogies are often the precursors of laws, so that it is not unreasonable to hope that ere long our knowledge of this border-land of chemistry and physics may be more definite, and thus that molecular physics may be brought within the domain of mathematics. It is however very remarkable that J.J. Thomson's conclusions on the stability of the orbital systems he devised should agree so closely with Mendeléeff's periodic law. On the whole Maxwell thought that the phenomena point to a common origin of all molecules of the same kind, that this was an event not belonging to that order of nature under which we live, but must have originated when or before the existing order was established, and that so long as the present order exists it is immutable. This is equivalent to saying that we have arrived at a point beyond which our limited experience does not enable us to carry the explanation. That we should be able to form an approximate idea of the size of the molecules of matter is a testimony to the extraordinary advance which mathematical physics has made recently. Sir William Thomson, now Lord Kelvin, whose ingenuity seems to know no limits—has suggested* four distinct methods of attacking the problem. They lead to results which are not very different. The first of these rests on an assertion of Cauchy that the phenomena of prismatic colours show that the distance between consecutive molecules of matter is comparable with the wave-lengths

of light. Taking the most unfavourable case this would seem to indicate that in a * See Nature, March 31, 1870, vol. i, pp. 531–553; and Tait's Recent Advances, pp. 303–318. The fourth method had been proposed by Loschmidt in 1863. 320 MATTER AND ETHER THEORIES. [CH. XIV transparent homogeneous solid or liquid medium there are not more than 64 × 1024 molecules in a cubic inch, that is, that the distance between consecutive molecules is greater than 1/(4×108)th of an inch. The second method is founded on the amount of work required to draw out a film of liquid, such as a soap-bubble, to a given thickness. This can be calculated from experiments in a capillary tube, and it is found that, if a soap-bubble could be drawn out to a thickness of 1/108 th of an inch there would be but a few molecules in its thickness. This method is not quantitative. Thirdly, Sir William Thomson proved that the contact phenomena of electricity require that in an alloy of brass the distance between two molecules, one of zinc and one of copper, shall be greater than 1/(7×108)th of an inch; hence the number of molecules in a cubic inch of zinc or copper is not greater than 35 × 1025 . Lastly, the kinetic theory of gases leads to the conclusion that certain phenomena of temperature and viscosity depend, inter alia, on inter-molecular collisions, and so on the sizes and velocities of the molecules, while the average velocity with which the molecules move increases with the temperature. This leads to the conclusion that the distance between two consecutive molecules of a gas at normal pressure and temperature is greater than 1/(6 × 106)th of an inch, and is less than 1/107 th of an inch; while the actual size of the molecule is a trifle greater than 1/(3 × 1020)th of a cubic inch; and the number of molecules in a cubic inch is about 3 × 1020 . Thus it would seem that a cubic inch of gas at ordinary pressure and temperature contains about 3 × 1020 molecules, all similar and equal, and each molecule has a volume of about 1/(3×1025)th of a cubic inch; while a cubic inch of the simplest solid or liquid contains rather less than 1027 molecules, and perhaps each molecule has a volume of about 1/(3 × 1026)th of a cubic inch. For instance, if a pea or a drop of water whose radius is 1/16th inch was magnified to the size of the earth, then there would be about thirty molecules in every cubic foot of it, and probably the size of a molecule would be about the same as that of a fives-ball. The average size of the minute drops of water in a very light cloud can be calculated from the coloured rings produced when the sun or moon shines through it. The radius of a drop is about 1/30000th of an inch. Such a drop therefore would contain about 2 × 1013 separate molecules. In gases and vapours, the number of atoms required to make CH. XIV] THE SIZE OF MOLECULES OF MATTER. 321 up one of these molecules can be estimated, but in liquids the number is not as yet known. Loschmidt asserted that a cube whose side is 1/4000th of a millimetre is the smallest object which can be made visible at the present time. Such a cube of oxygen or nitrogen would contain from 60 to 100 millions of molecules of the gas. Also on an average about 50 elementary molecules of

the so-called elements are required to constitute one molecule of organic matter. At least half of every living organism consists of water, and we may for the moment suppose that the remainder consists of organic matter. Hence the smallest living being which is visible under the microscope contains from 30 to 50 millions of elementary molecules which are combined in the form of water, and from 30 to 50 millions of elementary molecules which are combined so as to make not more than one million organic molecules. Hence a very simple organism might be built up out of as few as a million similar organic molecules. Maxwell did not consider that this was sufficient to justify the current conclusions of physiologists, and said that they must not suppose that structural details of infinitely small dimensions can furnish by themselves an explanation of the variety known to exist in the properties and functions of the most minute organisms; but physiologists have replied that whether their conjectures be right or wrong Maxwell's argument is vitiated by his non-consideration of differences due to the physical (as opposed to the chemical) structure of the organism and the consequent motions of the component parts. INDEX Abbot, W., 176 Abbott, E.A., 276 Achilles and the Tortoise, 67 Acts or Disputations, chap. vii Agrippa, Cornelius, 122 Ahrens, 97, 103, 123 Airy, Sir Geo., 87, 193 Aix, Labyrinth at, 152 Albohazen on Astrology, 237 Alcuin, 2, 55 Alfred the Great, 300 Alkarisimi on π, 216 Alkborough, Labyrinth at, 152 Anallagmatic Squares, 51 Anaxagoras, 214 Anderson, T., 271 Angular Motion, 69 Anstice, 103, 105–106 Antipho, 214 Apollonius, 205, 207, 215 Archimedes, 72, 211, 214, 218 Archytas on Delian Problem, 206 Argyle, 257 Arithmetic, Higher, 29–34 Arithmetical Fallacies, 20–24 Arithmetical Puzzles, 4–26 — Recreations, chap. i Arya Bhata on π, 215 Asenby, Labyrinth at, 152 Astrological Planets, 122, 239, 290 Astrology, chap. x Atomic Theories, chap. xiv Atoms, Size of, 319 Attraction, Law of, 313–317 Augustine on Astrology, 243 Augustus, 268, 291, 292 Ayrton on Magic Mirrors, 87 Babbage, C., 191 Bachet's Problèmes, 2–20, 27–29, 55, 113, 115, 122, 125, 132 Bacon, Francis, 268 Bailey, J.E., 250 Ball, 170, 172, 204, 207, 223, 281 Bardesan on Fate, 236 Barrow, I., 171 Baudhayana on π, 215 Becquerel Rays, 311, 312 Bedwell, T., 171 Beltrami on Space, 276 Benham on Spectrum Top, 87 Bentley, Newton to, 313 Bentley, R., 175 Bernoulli, John, 22 Berosus, 297 Berri, de, 266 Bertrand, J.L.F., 21 Bertrand, L. (of Geneva), 160 Besant on Hauksbee's Law, 82 Bhaskara on π, 216 Bickmore, C.E., 229, 230, 235 322 INDEX. 323 Biering on Delian Problem, 204 Billingsley, H., 171 Bills on Kirkman's Problem, 109 Binary Powers, Fermat on, 31–32 Birch, J.G., 232 Birds, Flight of, 85–86 Bjerknes, 310 Blackburn, J., 184 Blundeville, T., 171 Board, Mathematical, 197, 198 Boat-racing with a rope, 81–82 Bolyai, J., 284 Bonnycastle, J., 188 Bordered Magic Squares, 135–136 Boscovich on Matter, 306, 316, 318 Boughton Green, Labyrinth at, 152 Bouniakowski, V., on shuffling, 110 Bourget, M.J., on shuffling, 110 Bourlet, 18, 19 Boussinesq on Ether, 307 Brackets, in Tripos, 181, 187, 196, 197 Brahmagupta on π, 216 Breton on

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something of general interest.—The Oxford Magazine. 337 A PRIMER OF THE HISTORY OF MATHEMATICS By W.W. ROUSE BALL. [Second Edition. Pp. iv + 148. Price 2s. net.] MACMILLAN AND CO. Ltd., LONDON AND NEW YORK. This book contains a sketch in popular language of the history of mathematics; it includes some notice of the lives and surroundings of those to whom the development of the subject is mainly due as well as of their discoveries. This Primer is written in the agreeable style with which the author has made us acquainted in his previous essays; and we are sure that all readers of it will be ready to say that Mr. Ball has succeeded in the hope he has formed, that "it may not be uninteresting" even to those who are unacquainted with the leading facts. It is just the book to give an intelligent young student, and should allure him on to the perusal of Mr. Ball's "Short Account." The present work is not a mere réchauffé of that, though naturally most of what is here given will be found in equivalent form in the larger work. . . . The choice of material appears to us to be such as should lend interest to the study of mathematics and increase its educational value, which has been the author's aim. The book goes well into the pocket, and is excellently printed.—The Academy. We have here a new instance of Mr. Rouse Ball's skill in giving in a small space an intelligible account of a large subject. In 137 pages we have a sketch of the progress of mathematics from the earliest records up to the middle of this century, and yet it is interesting to read and by no means a mere catalogue.—The Manchester Guardian. It is not often that a reviewer of mathematical works can confess that he has read one of them through from cover to cover without abatement of interest or fatigue. But that is true of Mr. Rouse Ball's wonderfully entertaining little "History of Mathematics," which we heartily recommend to even the quite rudimentary mathematician. The capable mathematical master will not fail to find a dozen interesting facts therein to season his teaching.—The Saturday Review. 338 A fascinating little volume, which should be in the hands of all who do not possess the more elaborate History of Mathematics by the same author.—The Mathematical Gazette. This excellent sketch should be in the hands of every student, whether he is studying mathematics or no. In most cases there is an unfortunate lack of knowledge upon this subject, and we welcome anything that will help to supply the deficiency. The primer is written in a concise, lucid and easy manner, and gives the reader a general idea of the progress of mathematics that is both interesting and instructive.—The Cambridge Review. Mr. Ball has not been deterred by the existence and success of his larger "History of Mathematics" from publishing a simple compendium in about a quarter of the space. . . . Of course, what he now gives is a bare outline of the subject, but it is ample for all except the most advanced proficients. There is no question that, as the author says, a knowledge of the history of a science lends interest to its study, and often increases its educational value. We can imagine no better cathartic for any mathematical student who has made

some way with the calculus than a careful perusal of this little book.—The Educational Times. The author has done good service to mathematicians by engaging in work in this special field. . . . The Primer gives, in a brief compass, the history of the advance of this branch of science when under Greek influence, during the Middle Ages, and at the Renaissance, and then goes on to deal with the introduction of modern analysis and its recent developments. It refers to the life and work of the leaders of mathematical thought, adds a new and enlarged value to well-known problems by treating of their inception and history, and lights up with a warm and personal interest a science which some of its detractors have dared to call dull and cold.—The Educational Review. It is not too much to say that this little work should be in the possession of every mathematical teacher. . . . The Primer gives in a small compass the leading events in the development of mathematics. . . . At the same time, it is no dry chronicle of facts and theorems. The biographical sketches of the great workers, if short, are pithy, and often amusing. Well-known propositions will attain a new interest for the pupil as he traces their history long before the time of Euclid.—The Journal of Education. This is a work which all who apprehend the value of “mathematics” should read and study. . . , and those who wish to learn how to think will find advantage in reading it.—The English Mechanic. The subject, so far as our own language is concerned, is almost Mr. Ball’s own, and those who have no leisure to read his former work will find in this Primer a highly-readable and instructive chapter in the history of education. The condensation has been skilfully done, the reader’s interest being sustained by the introduction of a good deal of far from tedious detail.—The Glasgow Herald. Mr. W.W. Rouse Ball is well known as the author of a very clever history of mathematics, besides useful works on kindred subjects. His latest production is A Primer of the History of Mathematics, a book of one hundred and forty pages, giving in non-technical language a full, concise, and readable narrative of the development 339 of the science from the days of the Ionian Greeks until the present time. Anyone with a leaning towards algebraic or geometrical studies will be intensely interested in this account of progress from primitive usages, step by step, to our present elaborate systems. The lives of the men who by their research and discovery helped along the good work are described briefly, but graphically. . . . The Primer should become a standard text-book.—The Literary World. This is a capital little sketch of a subject on which Mr. Ball is an acknowledged authority, and of which too little is generally known. Mr. Ball, moreover, writes easily and well, and has the art of saying what he has to say in an interesting style.—The School Guardian. 340 MATHEMATICAL RECREATIONS AND ESSAYS By W.W. ROUSE BALL. [Fourth Edition. Pp. xvi + 402. Price 7s. net.] MACMILLAN AND CO. Ltd., LONDON AND NEW YORK. This work is divided into two parts; the first is on mathematical recreations and puzzles, the second includes some miscellaneous essays and an account of some

problems of historical interest. In both parts questions which involve advanced mathematics are excluded. The mathematical recreations include numerous elementary questions and paradoxes, as well as problems such as the proposition that to colour a map not more than four colours are necessary, the explanation of the effect of a cut on a tennis ball, the fifteen puzzle, the eight queens problem, the fifteen school-girls, the construction of magic squares, the theory and history of mazes, and the knight's path on a chess-board. The second part commences with sketches of the history of the Mathematical Tripos at Cambridge, of the three famous classical problems in geometry (namely, the duplication of the cube, the trisection of an angle, and the quadrature of the circle) and of Mersenne's Numbers. These are followed by essays on Astrology and Ciphers. The last three chapters are devoted to an account of the hypotheses as to the nature of Space and Mass, and the means of measuring Time. Mr. Ball has already attained a position in the front rank of writers on subjects connected with the history of mathematics, and this brochure will add another to his successes in this field. In it he has collected a mass of information bearing upon matters of more general interest, written in a style which is eminently readable, and at the same time exact. He has done his work so thoroughly that he has left few ears for other gleaners. The nature of the work is completely indicated to the mathematical student by its title. Does he want to revive his acquaintance with the Problèmes Plaisans et Délectables of Bachet, or the Récréations Mathématiques et Physiques of Ozanam? Let him take Mr. Ball for his companion, and he will have 341 the cream of these works put before him with a wealth of illustration quite delightful. Or, coming to more recent times, he will have full and accurate discussion of 'the fifteen puzzle,' 'Chinese rings,' 'the fifteen school-girls problem' et id genus omne. Sufficient space is devoted to accounts of magic squares and unicursal problems (such as mazes, the knight's path, and geometrical trees). These, and many other problems of equal interest, come under the head of 'Recreations.' The problems and speculations include an account of the Three Classical Problems; there is also a brief sketch of Astrology; and interesting outlines of the present state of our knowledge of hyper-space and of the constitution of matter. This enumeration badly indicates the matter handled, but it sufficiently states what the reader may expect to find. Moreover for the use of readers who may wish to pursue the several heads further, Mr. Ball gives detailed references to the sources from whence he has derived his information. These Mathematical Recreations we can commend as suited for mathematicians and equally for others who wish to while away an occasional hour.—The Academy. The idea of writing some such account as that before us must have been present to Mr. Ball's mind when he was collecting the material which he has so skilfully worked up into his History of Mathematics. We think this because . . . many bits of ore which would not suit the earlier work find a fitting niche in this. Howsoever the case may be, we are sure that

non-mathematical, as well as mathematical, readers will derive amusement, and, we venture to think, profit withal, from a perusal of it. The author has gone very exhaustively over the ground, and has left us little opportunity of adding to or correcting what he has thus reproduced from his notebooks. The work before us is divided into two parts: mathematical recreations and mathematical problems and speculations. All these matters are treated lucidly, and with sufficient detail for the ordinary reader, and for others there is ample store of references. . . . Our analysis shows how great an extent of ground is covered, and the account is fully pervaded by the attractive charm Mr. Ball knows so well how to infuse into what many persons would look upon as a dry subject.—Nature. A fit sequel to its author's valuable and interesting works on the history of mathematics. There is a fascination about this volume which results from a happy combination of puzzle and paradox. There is both milk for babes and strong meat for grown men. . . . A great deal of the information is hardly accessible in any English books; and Mr. Ball would deserve the gratitude of mathematicians for having merely collected the facts. But he has presented them with such lucidity and vivacity of style that there is not a dull page in the book; and he has added minute and full bibliographical references which greatly enhance the value of his work.—The Cambridge Review. Mathematicians with a turn for the paradoxes and puzzles connected with number, space, and time, in which their science abounds, will delight in Mathematical Recreations and Problems of Past and Present Times.—The Times. Mathematicians have their recreations; and Mr. Ball sets forth the humours of mathematics in a book of deepest interest to the clerical reader, and of no little attractiveness to the layman. The notes attest an enormous amount of research.— The National Observer. 342 Mr. Ball, to whom we are already indebted for two excellent Histories of Mathematics, has just produced a book which will be thoroughly appreciated by those who enjoy the setting of the wits to work. . . . He has collected a vast amount of information about mathematical quips, tricks, cranks, and puzzles—old and new; and it will be strange if even the most learned do not find something fresh in the assortment.—The Observatory. Mr. Rouse Ball has the true gift of story-telling, and he writes so pleasantly that though we enjoy the fulness of his knowledge we are tempted to forget the considerable amount of labour involved in the preparation of his book. He gives us the history and the mathematics of many problems . . . and where the limits of his work prevent him from dealing fully with the points raised, like a true worker he gives us ample references to original memoirs. . . . The book is warmly to be recommended, and should find a place on the shelves of every one interested in mathematics and on those of every public library.—The Manchester Guardian. A work which will interest all who delight in mathematics and mental exercises generally. The student will often take it up, as it contains many problems which puzzle even clever people.—The English Mechanic and World of

Science. This is a book which the general reader should find as interesting as the mathematician. At all events, an intelligent enjoyment of its contents presupposes no more knowledge of mathematics than is now-a-days possessed by almost everybody.—The Athenæum. An exceedingly interesting work which, while appealing more directly to those who are somewhat mathematically inclined, it is at the same time calculated to interest the general reader. . . . Mr. Ball writes in a highly interesting manner on a fascinating subject, the result being a work which is in every respect excellent.— The Mechanical World. É um livro muito interessante, consagrado a recreios mathematicos, alguns dos quaes são muito bellos, e a problemas interessantes da mesma sciencia, que não exige para ser lido grandes conhecimentos mathematicos e que tem em gráo elevado a qualidade de instruir, deleitando ao mesmo tempo.—Journal de sciencias mathematicas, Coimbra. The work is a very judicious and suggestive compilation, not meant mainly for mathematicians, yet made doubly valuable to them by copious references. The style in the main is so compact and clear that what is central in a long argument or process is admirably presented in a few words. One great merit of this, or any other really good book on such a subject, is its suggestiveness; and in running through its pages, one is pretty sure to think of additional problems on the same general lines.—Bulletin of the New York Mathematical Society. A book which deserves to be widely known by those who are fond of solving puzzles . . . and will be found to contain an admirable classified collection of ingenious questions capable of mathematical analysis. As the author is himself a skilful mathematician, and is careful to add an analysis of most of the propositions, it may easily be believed that there is food for study as well as amusement in his pages. . . . Is in every way worthy of praise.—The School Guardian. 343 Once more the author of a Short History of Mathematics and a History of the Study of Mathematics at Cambridge gives evidence of the width of his reading and of his skill in compilation. From the elementary arithmetical puzzles which were known in the sixteenth and seventeenth centuries to those modern ones the mathematical discussion of which has taxed the energies of the ablest investigator, very few questions have been left unrepresented. The sources of the author’s information are indicated with great fulness. . . . The book is a welcome addition to English mathematical literature.—The Oxford Magazine. 344 A HISTORY OF THE STUDY OF MATHEMATICS AT CAMBRIDGE By W.W. ROUSE BALL. [Pp. xvi + 264. Price 6s.] THE UNIVERSITY PRESS, CAMBRIDGE. This work contains an account of the development of the study of mathematics in the university of Cambridge from the twelfth century to the middle of the nineteenth century, and a description of the means by which proficiency in that study was tested at various times. The first part of the book is devoted to a brief account of the more eminent of the Cambridge mathematicians, the subject matter of their works, and their methods of exposition. The second part treats of the manner in which

mathematics was taught, and of the exercises and examinations required of students in past times. A sketch is given of the origin and history of the Mathematical Tripos; this includes the substance of the earlier parts of the author's work on that subject, Cambridge, 1880. To explain the relation of mathematics to other departments of study an outline of the general history of the university and the organization of education therein is added. The present volume is very pleasant reading, and though much of it necessarily appeals only to mathematicians, there are parts—e.g. the chapters on Newton, on the growth of the tripos, and on the history of the university—which are full of interest for a general reader. . . . The book is well written, the style is crisp and clear, and there is a humorous appreciation of some of the curious old regulations which have been superseded by time and change of custom. Though it seems light, it must represent an extensive study and investigation on the part of the author, the essential results of which are skilfully given. We can most thoroughly commend Mr. Ball's volume to all readers who are interested in mathematics or in the growth and the position of the Cambridge school of mathematicians.—The Manchester Guardian. Voici un livre dont la lecture inspire tout d'abord le regret que des travaux analogues n'aient pas été faits pour toutes les Écoles célèbres, et avec autant de soin 345 et de clarté. . . . Toutes les parties du livre nous out vivement intéressé.—Bulletin des sciences mathématiques. A book of pleasant and useful reading for both historians and mathematicians. Mr. Ball's previous researches into this kind of history have already established his reputation, and the book is worthy of the reputation of its author. It is more than a detailed account of the rise and progress of mathematics, for it involves a very exact history of the University of Cambridge from its foundation.—The Educational Times. Mr. Ball is far from confining his narrative to the particular science of which he is himself an acknowledged master, and his account of the study of mathematics becomes a series of biographical portraits of eminent professors and a record not only of the intellectual life of the élite but of the manners, habits, and discussions of the great body of Cambridge men from the sixteenth century to our own. . . . He has shown how the University has justified its liberal reputation, and how amply prepared it was for the larger freedom which it now enjoys.—The Daily News. Mr. Ball has not only given us a detailed account of the rise and progress of the science with which the name of Cambridge is generally associated but has also written a brief but reliable and interesting history of the university itself from its foundation down to recent times. . . . The book is pleasant reading alike for the mathematician and the student of history.—St. James's Gazette. A very handy and valuable book containing, as it does, a vast deal of interesting information which could not without inconceivable trouble be found elsewhere. . . . It is very far from forming merely a mathematical biographical dictionary, the growth of mathematical science being skilfully traced in connection with the successive

names. There are probably very few people who will be able thoroughly to appreciate the author's laborious researches in all sorts of memoirs and transactions of learned societies in order to unearth the material which he has so agreeably condensed. . . . Along with this there is much new matter which, while of great interest to mathematicians, and more especially to men brought up at Cambridge, will be found to throw a good deal of new and important light on the history of education in general.—The Glasgow Herald. Exceedingly interesting to all who care for mathematics. . . . After giving an account of the chief Cambridge Mathematicians and their works in chronological order, Mr. Rouse Ball goes on to deal with the history of tuition and examinations in the University . . . and recounts the steps by which the word "tripos" changed its meaning "from a thing of wood to a man, from a man to a speech, from a speech to two sets of verses, from verses to a sheet of coarse foolscap paper, from a paper to a list of names, and from a list of names to a system of examination."—Never did word undergo so many alterations.—The Literary World. In giving an account of the development of the study of mathematics in the University of Cambridge, and the means by which mathematical proficiency was tested in successive generations, Mr. Ball has taken the novel plan of devoting the first half of his book to . . . the more eminent Cambridge mathematicians, and of reserving to the second part an account of how at various times the subject was 346 taught, and how the result of its study was tested. . . . Very interesting information is given about the work of the students during the different periods, with specimens of problem-papers as far back as 1802. The book is very enjoyable, and gives a capital and accurate digest of many excellent authorities which are not within the reach of the ordinary reader.—The Scots Observer. 347 AN ESSAY ON THE GENESIS, CONTENTS, AND HISTORY OF NEWTON'S "PRINCIPIA" By W.W. ROUSE BALL. [Pp. x + 175. Price 6s. net.] MACMILLAN AND CO. Ltd., LONDON AND NEW YORK. This work contains an account of the successive discoveries of Newton on gravitation, the methods he used, and the history of his researches. It commences with a review of the extant authorities dealing with the subject. In the next two chapters the investigations made in 1666 and 1679 are discussed, some of the documents dealing therewith being here printed for the first time. The fourth chapter is devoted to the investigations made in 1684: these are illustrated by Newton's professorial lectures (of which the original manuscript is extant) of that autumn, and are summed up in the almost unknown memoir of February, 1685, which is here reproduced from Newton's holograph copy. In the two following chapters the details of the preparation from 1685 to 1687 of the Principia are described, and an analysis of the work is given. The seventh chapter comprises an account of the researches of Newton on gravitation subsequent to the publication of the first edition of the Principia, and a sketch of the history of that work. In the last chapter, the extant letters of 1678–1679 between Hooke and Newton, and of those of

1686–1687 between Halley and Newton, are reprinted, and there are also notes on the extant correspondence concerning the production of the second and third editions of the Principia. For the essay which we have before us, Mr Ball should receive the thanks of all those to whom the name of Newton recalls the memory of a great man. The Principia, besides being a lasting monument of Newton's life, is also to-day the classic of our mathematical writings, and will be so for some time to come. . . . The 348 value of the present work is also enhanced by the fact that, besides containing a few as yet unpublished letters, there are collected in its pages quotations from all documents, thus forming a complete summary of everything that is known on the subject. . . . The author is so well known a writer on anything connected with the history of mathematics, that we need make no mention of the thoroughness of the essay, while it would be superfluous for us to add that from beginning to end it is pleasantly written and delightful to read. Those well acquainted with the Principia will find much that will interest them, while those not so fully enlightened will learn much by reading through the account of the origin and history of Newton's greatest work.—Nature. An Essay on Newton's Principia will suggest to many something solely mathematical, and therefore wholly uninteresting. No inference could be more erroneous. The book certainly deals largely in scientific technicalities which will interest experts only; but it also contains much historical information which might attract many who, from laziness or inability, would be very willing to take all its mathematics for granted. Mr. Ball carefully examines the evidence bearing on the development of Newton's great discovery, and supplies the reader with abundant quotations from contemporary authorities. Not the least interesting portion of the book is the appendix, or rather appendices, containing copies of the original documents (mostly letters) to which Mr. Ball refers in his historical criticisms. Several of these bear upon the irritating and unfounded claims of Hooke.—The Athenæum. La savante monographie de M. Ball est rédigée avec beaucoup de soin, et à plusieurs égards elle peut servir de modèle pour des écrits de la même nature.— Bibliotheca Mathematica. Newton's Principia has world-wide fame as a classic of mathematical science. But those who know thoroughly the contents and the history of the book are a select company. It was at one time the purpose of Mr. Ball to prepare a new critical edition of the work, accompanied by a prefatory history and notes, and by an analytical commentary. Mathematicians will regret to hear that there is no prospect in the immediate future of seeing this important book carried to completion by so competent a hand. They will at the same time welcome Mr. Ball's Essay on the Principia for the elucidations which it gives of the process by which Newton's great work originated and took form, and also as an earnest of the completed plan.—The Scotsman. In this essay Mr. Ball presents us with an account highly interesting to mathematicians and natural philosophers of the origin and history of that remarkable product of a

great genius Philosophiae Naturalis Principia Mathematica, 'The Mathematical Principles of Natural Philosophy,' better known by the short term Principia. . . . Mr. Ball's essay is one of extreme interest to students of physical science, and it is sure to be widely read and greatly appreciated.—The Glasgow Herald. To his well-known and scholarly treatises on the History of Mathematics Mr. W.W. Rouse Ball has added An Essay on Newton's Principia. Newton's Principia, as Mr. Ball justly observes, is the classic of English mathematical writings; and this sound, luminous, and laborious essay ought to be the classical account 349 of the Principia. The essay is the outcome of a critical edition of Newton's great work, which Mr. Ball tells us that he once contemplated. It is much to be hoped that he will carry out his intention, for no English mathematician is likely to do the work better or in a more reverent spirit. . . . It is unnecessary to say that Mr. Ball has a complete knowledge of his subject. He writes with an ease and clearness that are rare.—The Scottish Leader. Le volume de M. Rouse Ball renferme tout ce que l'on peut désirer savoir sur l'histoire des Principes; c'est d'ailleurs l'œuvre d'un esprit clair, judicieux, et méthodique.—Bulletin des Sciences Mathématiques. Mr. Ball has put into small space a very great deal of interesting matter, and his book ought to meet with a wide circulation among lovers of Newton and the Principia.—The Academy. Admirers of Mr. W.W. Rouse Ball's Short Account of the History of Mathematics will be glad to receive a detailed study of the history of the Principia from the same hand. This book, like its predecessors, gives a very lucid account of its subject. We find in it an account of Newton's investigations in his earlier years, which are to some extent collected in the tract de Motu (the germ of the Principia) the text of which Mr. Rouse Ball gives us in full. In a later chapter there is a full analysis of the Principia itself, and after that an account of the preparation of the second and third editions. Probably the part of the book which will be found most interesting by the general reader is the account of the correspondence of Newton with Hooke, and with Halley, about the contents or the publication of the Principia. This correspondence is given in full, so far as it is recoverable. Hooke does not appear to advantage in it. He accuses Newton of stealing his ideas. His vain and envious disposition made his own merits appear great in his eyes, and be-dwarfed the work of others, so that he seems to have believed that Newton's great performance was a mere expanding and editing of the ideas of Mr. Hooke—ideas which were meritorious, but after all mere guesses at truth. This, at all events, is the most charitable view we can take of his conduct. Halley, on the contrary, appears as a man to whom we ought to feel most grateful. It almost seems as though Newton's physical insight and extraordinary mathematical powers might have been largely wasted, as was Pascal's rare genius, if it had not been for Halley's single-hearted and self-forgetful efforts to get from his friend's genius all he could for the enlightenment of men. It was probably at his suggestion that the writing of the Principia was

undertaken. When the work was presented to the Royal Society, they undertook its publication, but, being without the necessary funds, the expense fell upon Halley. When Newton, stung by Hooke's accusations, wished to withdraw a part of the work, Halley's tact was required to avert the catastrophe. All the drudgery, worry, and expense fell to his share, and was accepted with the most generous good nature. It will be seen that both the technical student and the general reader may find much to interest him in Mr. Rouse Ball's book.—The Manchester Guardian. Une histoire très bien faite de la genèse du livre immortel de Newton. . . . Le livre de M. Ball est une monographie précieuse sur un point important de l'histoire des mathématiques. Il contribuera à accroître, si c'est possible, la gloire de Newton, en révélant à beaucoup de lecteurs, avec quelle merveilleuse rapid- 350 ité l'illustre géomètre anglais a élevé à la science ce monument immortel, les Principia.—Mathesis. 351 NOTES ON THE HISTORY OF TRINITY COLLEGE, CAMBRIDGE By W.W. ROUSE BALL. [Pp. xiv + 183. Price 2s. 6d. net.] MACMILLAN AND CO. Ltd., LONDON AND NEW YORK. This booklet gives a popular account of the History of Trinity College, Cambridge, and so far as the author knows, it is as yet (1905) the only work published on the subject. It was written mainly for the use of his pupils, and contains such information and gossip about the College and life there in past times as he believed would be interesting to most undergraduates and members of the House. This modest and unpretending little volume seems to us to do more for its subject than many of the more formal volumes . . . treating of the separate colleges of the English universities. . . . In nine short, extremely readable, and truly informing chapters it gives the reader a very vivid account at once of the origin and development of the University of Cambridge, of the rise and gradual supremacy of the colleges, of King's Hall as founded by Edward II, of the suppression of King's Hall by Henry VIII on December 17, 1546, the foundation of Trinity College by royal charter on December 19, and the subsequent fortunes of the premier college of Cambridge. The subject is in a way treated under the successive heads of the college, but this is quite subordinate to the handling and characterisation of the subject under four great periods—namely, that during the Middle Ages, that during the Renaissance, that under the Elizabethan statutes, and that during the last half-century. The colleges arose from the determination of the University to prevent students who were very young from seeking lodging, whether under the wing of one or other of the religious orders—a circumstance which shows this University to have been an essentially lay corporation. Early in the sixteenth century the college had absorbed all the members of the University, and henceforth the University was little more than the degree-granting body to students who lived and moved and had their educational being under the colleges. . . . The University finally took the form of an aggregate of separate and independent corporations, with a federal constitution analogous in a rough sort of way to that of the United States of

America, 352 and different from similar corporations at Paris by the fact that these latter were always subject to University supervision. . . . There is a good account of the effort now going on to re-assert the University at the expense of the colleges. No one who begins Mr. Ball's book will lay it down till he has read it from beginning to end.—The Glasgow Herald. It is a sign of the times, and a very satisfactory one, when . . . a tutor . . . takes the trouble to make the history of his college known to his pupils. Considering the lack of good books about the Universities, we may thank Mr. Ball that he has been good enough to print for a larger circle. Though he modestly calls his book only "Notes," yet it is eminently readable, and there is plenty of information, as well as abundance of good stories, in its pages.—The Oxford Magazine. Mr. Ball has put not only the pupils for whom he compiled these notes, but the large world of Trinity men, under a great obligation by this compendious but lucid and interesting history of the society to whose service he is devoted. The value of his contribution to our knowledge is increased by the extreme simplicity with which he tells his story, and the very suggestive details which, without much comment, he has selected, with admirable discernment, out of the wealth of materials at his disposal. His initial account of the development of the University is brief but extremely clear, presenting us with facts rather than theories, but establishing, with much distinctness, the essential difference between the hostels, out of which the more modern colleges grew, and that monastic life which poorer students were often tempted to join.—The Guardian. An interesting and valuable book. . . . It is described by its author as "little more than an orderly transcript" of what, as a Fellow and Tutor of the College, he has been accustomed to tell his pupils. But while it does not pretend either to the form or to the exhaustiveness of a set history, it is scholarly enough to rank as an authority, and far more interesting and readable than most academic histories are. It gives an instructive sketch of the development of the University and of the particular history of Trinity, noting its rise and policy in the earlier centuries of its existence, until, under the misrule of Bentley, it came into a state of disorder which nearly resulted in its dissolution. The subsequent rise of the College and its position in what Mr. Ball calls the Victorian renaissance, are drawn in lines no less suggestive; and the book, as a whole, cannot fail to be welcome to every one who is closely interested in the progress of the College.—The Scotsman. Mr. Ball has succeeded very well in giving in this little volume just what an intelligent undergraduate ought and probably often does desire to know about the buildings and the history of his College. . . . The debt of the "royal and religious foundation" to Henry VIII is explained with fulness, and there is much interesting matter as to the manner of life and the expenses of students in the sixteenth century.—The Manchester Guardian. LICENSING. 353 *** END OF THE PROJECT GUTENBERG EBOOK MATHEMATICAL RECREATIONS *** ***** This file should be named 26839-pdf.pdf or 26839-pdf.zip ***** This and all associated files of

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Part four

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WILLIAM LILLY'S HISTORY OF HIS LIFE AND TIMES, FROM THE YEAR 1602 TO 1681.

Written by Himself, in the sixty-sixth year of his Age, to His Worthy Friend, Elias Ashmole, Esq.

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PREFIXED TO THE LIVES OF ELIAS ASHMOLE & WILLIAM LILLY.

In 1 vol. 8vo. 1772.

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Although we cannot, with justice, compare Elias Ashmole to that excellent Antiquary John Leland, or William Lilly to the learned and indefatigable Thomas Hearne; yet I think we may fairly rank them with such writers as honest Anthony Wood, whose Diary *greatly resembles that of his cotemporary, and intimate friend, Elias Ashmole.*

Some anecdotes, connected with affairs of state; many particulars relating to illustrious persons, and antient and noble families; several occurrences in which the Public is interested, and other matters of a more private nature, can only be found in works of this kind. History cannot stoop to the meanness of examining the materials of which Memoirs *are generally composed.*

And yet the pleasure and benefit resulting from such books are manifest to every reader.

I hope the admirers of the very laborious Thomas Hearne will pardon me, if I should venture to give it as my opinion, and with much deference to their judgment, that William Lilly's Life and Death of Charles the first *contains more useful matter of instruction, as well as more splendid and striking occurrences, than are to be found in several of those monkish volumes published by that learned Oxonian.*

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induced to suppose Lilly rather an enthusiast than an impostor. He relates many anecdotes of the pretenders to foretell events, raise spirits, and other impostures, with such seeming candor, and with such an artless simplicity of style, that we are almost persuaded to take his word when he protests such an inviolable respect to truth and sincerity.

The powerful genius of Shakespeare could carry him triumphantly through subjects the most unpromising, and fables the most improbable: we therefore cannot wonder at the success of such of his plays, where the magic of witches and the incantation of spirits are described, or where the power of fairies is introduced; when such was the credulity of the times respecting these imaginary beings, and when that belief was made a science of, and kept alive by artful and superstitious, knavish, and enthusiastic teachers; what Lilly relates of these people, considered only as matter of fact, is surely very curious.

To conclude; I know no record but this where we can find so just and so entertaining a History of Doctor Dee, Doctor Forman, Booker, Winder, Kelly, Evans, (Lilly's Master,) the famous William Poole, and Captain Bubb Fiske, Sarah Shelborne, and many others.

To these we may add, the uncommon effects of the Crystal, the appearance of Queen Mabb, and other strange and miraculous operations, which owe their origin to folly, curiosity, superstition, bigotry, and imposture.{7}

THE LIFE OF WILLIAM LILLY, STUDENT IN ASTROLOGY.

Wrote by himself in the 66th Year of his Age, at Hersham, in the Parish of Walton-upon-Thames, in the County of Surry. *Propria Manu.*

I[1] was born in the county of Leicester, in an obscure town, in the north-west borders thereof, called Diseworth, seven miles south of the town of Derby, one mile from Castle-Donnington, a town of great rudeness, wherein it is not remembered that any of {8}the farmers thereof did ever educate any of their sons to learning, only my grandfather sent his younger son to Cambridge, whose {9}name was Robert Lilly, and died Vicar of Cambden in Gloucestershire, about 1640.

Footnote 1:(return)

"William Lilly was a prominent, and, in the opinion of many of his cotemporaries, a very important personage in the most eventful period of English history. He was a principal actor in the farcical scenes which diversified the bloody tragedy of civil war; and while the King and the Parliament were striving for mastery in the field, he was deciding their destinies in the closet. The weak and the credulous of both parties, who sought to be instructed in 'destiny's dark counsels,' flocked to consult the 'wily Archimage,' who, with exemplary impartiality, meted out victory and good fortune to his clients, according to the extent of their faith, and the weight of their purses. A few profane Cavaliers might make his name the burthen of their *malignant* rhymes—a few of the more scrupulous among the *Saints* might keep aloof in sanctified abhorrence of the 'Stygian sophister'—but the great majority of the people lent a willing and reverential ear to his prophecies and prognostications. Nothing was too high or too low—too mighty or too insignificant, for the grasp of his genius. The stars, his informants, were as communicative on the most trivial as on the most important subjects. If a scheme was set on foot to rescue the king, or to retrieve a stray trinket—to restore the royal authority, or to make a frail damsel an honest woman—to cure the nation of anarchy, or a lap-dog of a surfeit, William Lilly was the oracle to be consulted. His *almanacks* were spelled over in the tavern and quoted in the senate; they nerved the arm of the soldier, and rounded the periods of the orator. The fashionable beauty, dashing along in her calash from St. James's or the Mall, and the prim, starched dame, from Watling-street or Bucklersbury, with a staid foot-boy, in a plush jerkin, plodding behind her—the reigning toast among 'the men of wit about town,' and the leading groaner in a tabernacle concert—glided alternately into the study of the trusty wizard, and poured into his attentive ear strange tales of love, or trade, or treason. The Roundhead stalked in at one door, whilst the Cavalier was hurried out at the other.

"The *Confessions* of a man so variously consulted and trusted, if written with the candour of a Cardan or a Rousseau, would indeed be invaluable. The *Memoirs of William Lilly*, though deficient in this essential ingredient, yet contain a variety of curious and interesting anecdotes of himself and his cotemporaries,

which, where the vanity of the writer, or the truth of his art, is not concerned, may be received with implicit credence.

"The simplicity and apparent candour of his narrative might induce a hasty reader of this book to believe him a well-meaning but somewhat silly personage, the dupe of his own speculations—the deceiver of himself as well as of others. But an attentive examination of the events of his life, even as recorded by himself, will not warrant so favourable an interpretation. His systematic and successful attention to his own interest—his dexterity in keeping on 'the windy side of the law'—his perfect political pliability—and his presence of mind and fertility of resources when entangled in difficulties—indicate an accomplished impostor, not a crazy enthusiast. It is very possible and probable, that, at the outset of his career, he was a real believer in the truth and lawfulness of his art, and that he afterwards felt no inclination to part with so pleasant and so profitable a delusion: like his patron, Cromwell, whose early fanaticism subsided into hypocrisy, he carefully retained his folly as a cloak for his knavery. Of his success in deception, the present narrative exhibits abundant proofs. The number of his dupes was not confined to the vulgar and illiterate, but included individuals of real worth and learning, of hostile parties and sects, who courted his acquaintance and respected his predictions. His proceedings were deemed of sufficient importance to be twice made the subject of a parliamentary inquiry; and even after the Restoration—when a little more scepticism, if not more wisdom, might have been expected—we find him examined by a Committee of the House of Commons, respecting his fore-knowledge of the great fire of London. We know not whether it 'should more move our anger or our mirth,' to see an assemblage of British Senators—the cotemporaries of Hampden and Falkland—of Milton and Clarendon—in an age which roused into action so many and such mighty energies—gravely engaged in ascertaining the causes of a great national calamity, from the prescience of a knavish fortuneteller, and puzzling their wisdoms to interpret the symbolical flames, which blazed in the mis-shapen wood-cuts of his oracular publications.

"As a set-off against these honours may be mentioned, the virulent and unceasing attacks of almost all the party scribblers of the day; but their abuse he shared in common with men, whose talents and virtues have outlived the malice of their cotemporaries, and

'Whose honours with increase of ages grow,
As streams roll down, enlarging as they flow.'"

Retrospective Review, Vol. ii. p. 51.

The town of Diseworth did formerly belong {10}long unto the Lord Seagrave, for there is one record in the hands of my cousin Melborn Williamson, which mentions one acre of land {11}abutting north upon the gates of the Lord Seagrave; and there is one close, called Hall-close, wherein the ruins of some ancient {12}buildings appear, and particularly where the dove-house stood; and there is also the ruins of decayed fish-ponds and other outhouses. This town came at length to be the inheritance of Margaret, Countess of Richmond, mother of Henry VII. which {13}Margaret gave this town and lordship of Diseworth unto Christ's College in Cambridge, the Master and Fellows whereof have ever since, and at present, enjoy and possess it.

In the church of this town there is but one monument, and that is a white marble stone, now almost broken to pieces, which was placed there by Robert Lilly, my grandfather, in memory of Jane his wife, the daughter of Mr. Poole of Dalby, in the same county, a family now quite extinguished. My grandmother's brother was Mr. Henry Poole, one of the Knights of Rhodes, or Templars, who being a soldier at Rhodes at the taking thereof by Solyman the Magnificent, and escaping with his life, came afterwards to England, and married the Lady Parron or Perham, of Oxfordshire, and was called, during his life, Sir Henry Poole. William {14}Poole the Astrologer knew him very well, and remembers him to have been a very tall person, and reputed of great strength in his younger years.

The impropriation of this town of Diseworth was formerly the inheritance of three sisters, whereof two became votaries; one in the nunnery of Langly in the parish of Diseworth, valued at the suppression, I mean the whole nunnery, at thirty-two pounds per annum, and this sister's part is yet enjoyed by the family of the Grayes, who now, and for some years past, have the enjoyment and possession of all the lands formerly belonging to the nunnery in the parish of Diseworth, and are at present of the yearly value of three hundred and fifty pounds per annum. One of the sisters gave her part of

the great tithes unto a religious house in Bredon upon the Hill; and, as the inhabitants {15}report, became a religious person afterwards.

The third sister married, and her part of the tithes in succeeding ages became the Earl of Huntingdon's, who not many years since sold it to one of his servants.

The donation of the vicarage is in the gift of the Grayes of Langley, unto whom they pay yearly, (I mean unto the Vicar) as I am informed, six pounds per annum. Very lately some charitable citizens have purchased one-third portion of the tithes, and given it for a maintenance of a preaching minister, and it is now of the value of about fifty pounds per annum.

There have been two hermitages in this parish; the last hermit was well remembered by one Thomas Cooke, a very ancient inhabitant, who in my younger years acquainted me therewith.

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This town of Diseworth is divided into three parishes; one part belongs under Locington, in which part standeth my father's house, over-against the west end of the steeple, in which I was born: some other farms are in the parish of Bredon, the rest in the parish of Diseworth.

In this town, but in the parish of Lockington, was I born, the first day of May 1602.

My father's name was William Lilly, son of Robert, the son of Robert, the son of Rowland, &c. My mother was Alice, the daughter of Edward Barham, of Fiskerton Mills, in Nottinghamshire, two miles from Newark upon Trent: this Edward Barham was born in Norwich, and well remembered the rebellion of Kett the Tanner, in the days of Edward VI.

Our family have continued many ages in this town as yeomen; besides the farm my {17}father and his ancestors lived in, both my father and grandfather had much free land, and many houses in the town, not belonging to the college, as the farm wherein they were all born doth, and is now at this present of the value of forty pounds per annum, and in possession of my brother's son; but the freehold land and houses, formerly purchased by my ancestors, were all sold by my grandfather and father; so that now our family depend wholly upon a college lease. Of my infancy I can speak little, only I do remember that in the fourth year of my age I had the measles.

I was, during my minority, put to learn at such schools, and of such masters, as the rudeness of the place and country afforded; my mother intending I should be a scholar from my infancy, seeing my father's back-slidings in the world, and no hopes by plain {18}husbandry to recruit a decayed estate; therefore upon Trinity Tuesday, 1613, my father had me to Ashby de la Zouch, to be instructed by one Mr. John Brinsley; one, in those times, of great abilities for instruction of youth in the Latin and Greek tongues; he was very severe in his life and conversation, and did breed up many scholars for the universities: in religion he was a strict Puritan, not conformable wholly to the ceremonies of the Church of England. In this town of Ashby de la Zouch, for many years together, Mr. Arthur Hildersham exercised his ministry at my being there; and all the while I continued at Ashby, he was silenced. This is that famous Hildersham, who left behind him a commentary on the fifty-first psalm; as also many sermons upon the fourth of John, both which are printed; he was an excellent textuary, of exemplary life, {19}pleasant in discourse, a strong enemy to the Brownists, and dissented not from the Church of England in any article of faith, but only about wearing the surplice, baptizing with the cross, and kneeling at the sacrament; most of the people in town were directed by his judgement, and so continued, and yet do continue presbyterianly affected; for when the Lord of Loughborough in 1642, 1643, 1644, and 1645, had his garrison in that town, if by chance at any time any troops of horse had lodged within

the town, though they came late at night to their quarters; yet would one or other of the town presently give Sir John Gell of Derby notice, so that ere next morning most of his Majesty's troops were seized in their lodgings, which moved the Lord of Loughborough merrily to say, there was not a fart let in Ashby, but it was presently carried to Derby.

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The several authors I there learned were these, viz. *Sententiæ Pueriles, Cato, Corderius, Æsop's Fables, Tully's Offices, Ovid de Tristibus*; lastly, *Virgil*, then *Horace*; as also *Camden's Greek Grammar, Theognis* and *Homer's Iliads*: I was only entered into *Udall's Hebrew Grammar*; he never taught logick, but often would say it was fit to be learned in the universities.

In the fourteenth year of my age, by a fellow scholar of swarth, black complexion, I had like to have my right eye beaten out as we were at play; the same year, about Michaelmas, I got a surfeit, and thereupon a fever, by eating beech-nuts.

In the sixteenth year of my age I was exceedingly troubled in my dreams concerning my salvation and damnation, and also concerning the safety and destruction of the souls of my father and mother; in the nights {21}I frequently wept, prayed and mourned, for fear my sins might offend God.

In the seventeenth year of my age my mother died.

In the eighteenth year of my age my master Brinsley was enforced from keeping school, being persecuted by the Bishop's officers; he came to London, and then lectured in London, where he afterwards died. In this year, by reason of my father's poverty, I was also enforced to leave school, and so came to my father's house, where I lived in much penury for one year, and taught school one quarter of a year, until God's providence provided better for me.

For the two last years of my being at school, I was of the highest form in the school, and chiefest of that form; I could then speak Latin as well as English; could make extempore verses upon any theme; {22}all kinds of verses, hexameter, pentameter, phaleuciacks, iambicks, sapphicks, &c. so that if any scholars from remote schools came to dispute, I was ringleader to dispute with them; I could cap verses, &c. If any minister came to examine us, I was brought forth against him, nor would I argue with him unless in the Latin tongue, which I found few of them could well speak without breaking Priscian's head; which, if once they did, I would complain to my master, *Non bene intelligit linguam Latinam, nec prorsus loquitur*. In the derivation of words, I found most of them defective, nor indeed were any of them good grammarians: all and every of those scholars who were of my form and standing, went to Cambridge and proved excellent divines, only poor I, William Lilly, was not so happy; fortune then frowning upon father's present condition, he {23}not in any capacity to maintain me at the university.

OF THE MANNER HOW I CAME UNTO LONDON.

Worthy sir, I take much delight to recount unto you, even all and every circumstance of my life, whether good, moderate, or evil; *Deo gloria*.

My father had one Samuel Smatty for his Attorney, unto whom I went sundry times with letters, who perceiving I was a scholar, and that I lived miserably in the country, losing my time, nor any ways likely to do better, if I continued there; pitying my condition, he sent word for me to come and speak with him, and told me that he had lately been at London, where there was a gentleman wanted a youth, to attend him and his wife, who could write, &c.

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I acquainted my father with it, who was very willing to be rid of me, for I could not work, drive the plough, or endure any country labour; my father oft would say, I was good for nothing.

I had only twenty shillings, and no more, to buy me a new suit, hose, doublet, &c. my doublet was fustian: I repaired to Mr. Smatty, when I was accoutred, for a letter to my master, which he gave me.

Upon Monday, April 3, 1620, I departed from Diseworth, and came to Leicester: but I must acquaint you, that before I came away I visited my friends, amongst whom I had given me about ten shillings, which was a great comfort unto me. On Tuesday, April the 4th, I took leave of my father, then in Leicester gaol for debt, and came along with Bradshaw the carrier, the same person with whom many of the {25}Duke of Buckingham's kindred had come up with. Hark how the waggons crack with their rich lading! It was a very stormy week, cold and uncomfortable: I footed it all along; we could not reach London until Palm-Sunday, the 9th of April, about half an hour after three in the afternoon, at which time we entered Smithfield. When I had gratified the carrier and his servants, I had seven shillings and sixpence left, and no more; one suit of cloaths upon my back, two shirts, three bands, one pair of shoes, and as many stockings. Upon the delivery of my letter my master entertained me, and next day bought me a new cloak, of which you may imagine (good Esquire) whether I was not proud of; besides, I saw and eat good white bread, contrary to our diet in Leicestershire. My master's name was Gilbert Wright, born at {26}Market Bosworth in Leicestershire; my mistress was born at Ashby de la Zouch, in the same county, and in the town where I had gone to school. This Gilbert Wright could neither write nor read: he lived upon his annual rents, was of no calling or profession; he had for many years been servant to the Lady Pawlet in Hertfordshire; and when Serjeant Puckering was made Lord keeper, he made him keeper of his lodgings at Whitehall. When Sir Thomas Egerton was made

Lord Chancellor, he entertained him in the same place; and when he married a widow in Newgate Market, the Lord Chancellor recommended him to the company of Salters, London, to admit him into their company, and so they did, and my master in 1624, was master of that company; he was a man of excellent natural parts, and would {27}speak publickly upon any occasion very rationally and to the purpose. I write this, that the world may know he was no taylor, or myself of that or any other calling or profession: my work was to go before my master to church; to attend my master when he went abroad; to make clean his shoes; sweep the street; help to drive bucks when he washed; fetch water in a tub from the Thames: I have helped to carry eighteen tubs of water in one morning; weed the garden; all manner of drudgeries I willingly performed; scrape trenchers, &c. If I had any profession, it was of this nature: I should never have denied being a taylor, had I been one; for there is no calling so base, which by God's mercy may not afford a livelihood; and had not my master entertained me, I would have been of a very mean profession ere I would have {28}returned into the country again; so here ends the actions of eighteen years of my life.

My master married his second wife for her estate; she was competently rich; she married him for considerations he performed not, (nocturnal society) so that they lived very uncomfortably; she was about seventy years of age, he sixty-six or more; yet never was any woman more jealous of a husband than she; insomuch, that whensoever he went into London, she was confident of his going to women; by those means my life was the more uncomfortable, it being very difficult to please two such opposite natures: however, as to the things of this world I had enough, and endured their discontents with much sereneness. My mistress was very curious to know of such as were then called cunning or wise {29}men, whether she should bury her husband? She frequently visited such persons, and this occasion begot in me a little desire to learn something that way, but wanting money to buy books, I laid aside these motions, and endeavoured to please both master and mistress.

OF MY MISTRESS'S DEATH, AND OCCASION THEREOF BY MEANS OF A CANCER IN HER BREAST.

In 1622 she complained of a pain in her left breast, whereon there appeared at first a hard knob no bigger than a small pea; it increased in a little time very much, was very hard, and sometimes would look very red; she took advice of surgeons, had oils, sear-cloths, plates of lead, and what not: in 1623 it grew very big, and spread all {30}over her breast; then for many weeks poultices were applied to it, which in continuance of time broke the skin, and then abundance of watery thin stuff came from it, but nothing else; at length the matter came to suppuration, but never any great store issued forth; it was exceeding noisome and painful; from the beginning of it until she died, she would permit no surgeon to dress it but only myself; I applied every thing unto it, and her pains were so great the winter before she died, that I have been called out of my bed two or three times in one night to dress it and change plaisters. In 1624 by degrees, with scissars, I cut all the whole breast away, I mean the sinews, nerves, &c. In one fortnight, or little more, it appeared, as it were, mere flesh, all raw, so that she could scarce endure any unguent to be applied.

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I remember there was a great cleft through the middle of the breast, which when that fully appeared she died, which was in September 1624; my master being then in the country, his kindred in London would willingly have had mourning for her; but by advice of an especial friend of his I contradicted them; nor would I permit them to look into any chest or trunk in the house. She was decently buried, and so fond of me in the time of her sickness, she would never permit me out of her chamber, gave me five pounds in old gold, and sent me unto a private trunk of her's at a friend's house, where she had one hundred pounds in gold; she bid me bring it away and take it, but when I opened the trunk I found nothing therein; for a kinsman of hers had been there a few

days before, and carried all away: she was in a great passion at my relating thereof, because {32}she could not gratify my pains in all her sickness, advised me to help myself, when she was gone, out of my master's goods, which I never did.

Courteous Esquire, be not weary of reading hereof, or what followeth.

When my mistress died, she had under her arm-hole a small scarlet bag full of many things, which, one that was there delivered unto me. There was in this bag several sigils, some of Jupiter in Trine, others of the nature of Venus, some of iron, and one of gold, of pure angel-gold, of the bigness of a thirty-three shilling piece of King James's coin. In the circumference on one side was engraven, *Vicit Leo de tribu Judæ Tetragrammaton* [symbol: cross], within the middle there was engraven a holy lamb. In the other circumference there was Amraphel and three [symbol: cross]. In the middle, *Sanctus Petrus*, *Alpha* and *Omega*.

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The occasion of framing this sigil was thus; her former husband travelling into Sussex, happened to lodge in an inn, and to lie in a chamber thereof; wherein, not many months before, a country grazier had lain, and in the night cut his own throat; after this night's lodging, he was perpetually, and for many years, followed by a spirit, which vocally and articulately provoked him to cut his throat: he was used frequently to say, 'I defy thee, I defy thee,' and to spit at the spirit; this spirit followed him many years, he not making any body acquainted with it; at last he grew melancholy and discontented; which being carefully observed by his wife, she many times hearing him pronounce, 'I defy thee,' &c. she desired him to acquaint her with the cause of his distemper, which he then did. Away she went to Dr. Simon Forman, who lived then in Lambeth, and {34}acquaints him with it; who having framed this sigil, and hanged it about his neck, he wearing it continually until he died, was never more molested by the spirit: I

sold the sigil for thirty-two shillings, but transcribed the words *verbatim* as I have related. Sir, you shall now have a story of this Simon Forman, as his widow, whom I well knew, related it unto me. But before I relate his death, I shall acquaint you something of the man, as I have gathered them from some manuscripts of his own writing.

OF DR. SIMON FORMAN

He was a chandler's son in the city of Westminster. He travelled into Holland for a month, in 1580, purposely to be instructed in astrology, and other more occult sciences; as also in physick, taking his degree of Doctor beyond seas: being sufficiently furnished {35}and instructed with what he desired, he returned into England, towards the latter end of the reign of Queen Elizabeth, and flourished until that year of King James, wherein the Countess of Essex, the Earl of Somerset, and Sir Thomas Overbury's matters were questioned. He lived in Lambeth, with a very good report of the neighbourhood, especially of the poor, unto whom he was very charitable. He was a person that in horary questions (especially thefts) was very judicious and fortunate; so also in sicknesses, which indeed was his master-piece. In resolving questions about marriage he had good success: in other questions very moderate. He was a person of indefatigable pains. I have seen sometimes half one sheet of paper wrote of his judgment upon one question; in writing whereof he used much tautology, as you may see yourself, (most excellent Esquire) {36}if you read a great book of Dr. Flood's, which you have, who had all that book from the manuscripts of Forman; for I have seen the same word for word in an English manuscript formerly belonging to Doctor Willoughby of Gloucestershire. Had Forman lived to have methodized his own papers, I doubt not but he would have advanced the Jatro-mathematical part thereof very completely; for he was very observant, and kept notes of the success of his judgments, as in many of his

figures I have observed. I very well remember to have read, in one of his manuscripts, what followeth.

'Being in bed one morning,' (says he) 'I was desirous to know whether I should ever be a Lord, Earl, or Knight, &c. whereupon I set a figure; and thereupon my judgment:' by which he concluded, that within two years time he should be a Lord or great man: {37}'But,' says he, 'before the two years were expired, the Doctors put me in Newgate, and nothing came.' Not long after, he was desirous to know the same things concerning his honour or greatship. Another figure was set, and that promised him to be a great Lord within one year. But he sets down, that in that year he had no preferment at all; only 'I became acquainted with a merchant's wife, by whom I got well.' There is another figure concerning one Sir —— Ayre his going into Turkey, whether it would be a good voyage or not: the Doctor repeats all his astrological reasons and musters them together, and then gave his judgment it would be a fortunate voyage. But under this figure he concludes, 'this proved not so, for he was taken prisoner by pirates ere he arrived in Turkey, and lost all.' He set several questions to know if he should attain the philosophers' {38}stone, and the figures, according to his straining, did seem to signify as much; and then he tuggs upon the aspects and configurations, and elected a fit time to begin his operation; but, by and by, in conclusion, he adds, 'so the work went very forward; but upon the [symbol: aspect "squares"] of [symbol: aspect "conjunctions"] the setting-glass broke, and I lost all my pains:' he sets down five or six such judgments, but still complains all came to nothing, upon the malignant aspects of [symbol: Saturn] and [symbol: Mars]. Although some of his astrological judgments did fail, more particularly those concerning himself, he being no way capable of such preferment as he ambitiously desired; yet I shall repeat some other of his judgments, which did not fail, being performed by conference with spirits. My mistress went once unto him, to know when her husband, then in Cumberland, would return, he having promised to be at home {39}near the time of the question; after some consideration, he told her to this

effect: 'Margery,' for so her name was, 'thy husband will not be at home these eighteen days; his kindred have vexed him, and he is come away from them in much anger: he is now in Carlisle, and hath but three-pence in his purse.' And when he came home he confessed all to be true, and that upon leaving his kindred he had but three-pence in his purse. I shall relate one story more, and then his death.

One Coleman, clerk to Sir Thomas Beaumont of Leicestershire, having had some liberal favours both from his lady and her daughters, bragged of it, &c. The Knight brought him into the star-chamber, had his servant sentenced to be pilloried, whipped, and afterwards, during life, to be imprisoned. The sentence was executed in London, and was {40}to be in Leicestershire: two keepers were to convey Coleman from the Fleet to Leicester. My mistress taking consideration of Coleman, and the miseries he was to suffer, went presently to Forman, acquainted him therewith; who, after consideration, swore Coleman had lain both with mother and daughters; and besides said, that the old Lady being afflicted with fits of the mother, called him into her chamber to hold down the fits with his hands; and that he holding his hands about the breast, she cried 'Lower, lower,' and put his hands below her belly; and then—He also told my mistress in what posture he lay with the young ladies, &c. and said, 'they intend in Leicester to whip him to death; but I assure thee, Margery, he shall never come there; yet they set forward to-morrow,' says he; and so his two keepers did, Coleman's legs being locked {41}with an iron chain under the horse's belly. In this nature they travelled the first and second day; on the third day the two keepers, seeing their prisoner's civility the two preceding days, did not lock his chain under the horse's belly as formerly, but locked it only to one side. In this posture they rode some miles beyond Northampton, when on a sudden, one of the keepers had a necessity to untruss, and so the other and Coleman stood still; by and by the other keeper desired Coleman to hold his horse, for he had occasion also: Coleman immediately took one of their swords, and ran through two of the horses, killing them stark dead; gets upon the other, with one of their swords; 'Farewell,

gentlemen,' quoth he, 'tell my master I have no mind to be whipped in Leicestershire,' and so went his way. The two keepers in all haste went to a gentleman's {42}house near at hand, complaining of their misfortune, and desired of him to pursue their prisoner, which he with much civility granted; but ere the horses could be got ready, the mistress of the house came down, and enquiring what the matter was, went to the stable, and commanded the horses to be unsaddled, with this sharp speech—'Let the Lady Beaumont and her daughters live honestly, none of my horses shall go forth upon this occasion.'

I could relate many such stories of his performances; as also what he wrote in a book left behind him, *viz.* 'This I made the devil write with his own hand in Lambeth Fields 1596, in June or July, as I now remember.' He professed to his wife there would be much trouble about Carr and the Countess of Essex, who frequently resorted unto him, and from whose company he would sometimes {43}lock himself in his study a whole day. Now we come to his death, which happened as follows: the Sunday night before he died, his wife and he being at supper in their garden-house, she being pleasant, told him, that she had been informed he could resolve, whether man or wife should die first; 'Whether shall I' (quoth she) 'bury you or no?' 'Oh Trunco,' for so he called her, 'thou wilt bury me, but thou wilt much repent it.' 'Yea, but how long first?' 'I shall die,' said he, 'ere Thursday night.' Monday came, all was well. Tuesday came, he not sick. Wednesday came, and still he was well; with which his impertinent wife did much twit him in his teeth. Thursday came, and dinner was ended, he very well: he went down to the water-side, and took a pair of oars to go to some buildings he was in hand with in Puddle-dock. Being in the middle {44}of the Thames, he presently fell down, only saying, 'An impost, an impost,' and so died. A most sad storm of wind immediately following. He died worth one thousand two hundred pounds, and left only one son called Clement. All his rarities, secret manuscripts, of what quality soever, Dr. Napper of Lindford in Buckinghamshire had, who had been a long time his scholar; and of

whom Forman was used to say he would be a dunce: yet in continuance of time he proved a singular astrologer and physician. Sir Richard now living, I believe, has all those rarities in possession, which were Forman's, being kinsman and heir unto Dr. Napper. (His son Thomas Napper, Esq.; most generously gave most of these manuscripts to Elias Ashmole, Esq.;) I hope you will pardon this digression.

After my mistress was dead, I lived most {45}comfortably, my master having a great affection for me.

The year 1625 now comes on, and the plague exceeding violent, I will relate what I observed the spring before it broke forth. Against our corner house every night there would come down, about five or six of the clock, sometime one hundred or more boys, some playing, others as if in serious discourse, and just as it grew dark would all be gone home; many succeeding years there was no such, or any concourse, usually no more than four or five in a company: In the spring of 1625, the boys and youths of several parishes in like number appeared again, which I beholding, called Thomas Sanders, my landlord, and told him, that the youth and young boys of several parishes did in that nature assemble and play, in the beginning of the year 1625. 'God bless us,' quoth {46}I, 'from a plague this year;' but then there succeeded one, and the greatest that ever was in London. In 1625, the visitation encreasing, and my master having a great charge of money and plate, some of his own, some other men's, left me and a fellow-servant to keep the house, and himself in June went into Leicestershire. He was in that year feoffee collector for twelve poor alms-people living in Clement-Dane's Church-Yard; whose pensions I in his absence paid weekly, to his and the parish's great satisfaction. My master was no sooner gone down, but I bought a bass-viol, and got a master to instruct me; the intervals of time I spent in bowling in Lincoln's-Inn-Fields, with Wat the cobler, Dick the blacksmith, and such like companions: We have sometimes been at our work at six in the morning, and so continued till three or four in

the afternoon, {47}many times without bread or drink all that while. Sometimes I went to church and heard funeral sermons, of which there was then great plenty. At other times I went early to St. Antholine's in London, where there was every morning a sermon. The most able people of the whole city and suburbs were out of town; if any remained, it were such as were engaged by parish-officers to remain; no habit of a gentleman or woman continued; the woeful calamity of that year was grievous, people dying in the open fields and in open streets. At last, in August, the bills of mortality so encreased, that very few people had thoughts of surviving the contagion: the Sunday before the great bill came forth, which was of five thousand and odd hundreds, there was appointed a sacrament at Clement Dane's; during the destributing whereof I do very {48}well remember we sang thirteen parts of the one hundred and nineteenth Psalm. One Jacob, our minister (for we had three that day, the communion was so great) fell sick as he was giving the sacrament, went home, and was buried of the plague the Thursday following, Mr. James, another of the ministers, fell sick ere he had quite finished, had the plague, and was thirteen weeks ere he recovered. Mr. Whitacre, the last of the three, escaped not only then, but all the contagion following, without any sickness at all; though he officiated at every funeral, and buried all manner of people, whether they died of the plague or not. He was given to drink, seldom could preach more than one quarter of an hour at a time, &c. In November my master came home. My fellow-servant's and my diet came weekly to six shillings and sixpence, sometimes {49}to seven shillings, so cheap was diet at that time.

In February of that year, my master married again (one who after his death became my wife.) In the same year he settled upon me, during my life, twenty pounds per annum, which I have enjoyed ever since, even to the writing hereof.

May 22, 1627, my master died at the corner house in the Strand, where I also lived so long. He died intestate; my mistress relinquishing the administration, it came to his

elder brother, who assigned the estate over to me for payment of my master's debts; which being paid, I faithfully returned the remaining part unto his administrator; nor had one penny of the estate more than twenty pounds per annum, which was allowed me by contract, to undertake the payment of my master's debts.

{50}

OF MY MARRIAGE THE FIRST TIME.

My mistress, who had been twice married to old men, was now resolved to be couzened no more; she was of a brown ruddy complexion, corpulent, of but mean stature, plain, no education, yet a very provident person, and of good condition: she had many suitors, old men, whom she declined; some gentlemen of decayed fortunes, whom she liked not, for she was covetous and sparing: by my fellow-servant she was observed frequently to say, she cared not if she married a man that would love her, so that he had never a penny; and would ordinarily talk of me when she was in bed: this servant gave me encouragement to give the onset: I was much perplexed hereat, for should I attempt her, and be slighted, {51}she would never care for me afterwards; but again, I considered that if I should attempt and fail, she would never speak of it; or would any believe I durst be so audacious as to propound such a question, the disproportion of years and fortune being so great betwixt us: however, all her talk was of husbands, and in my presence saying one day after dinner, she respected not wealth, but desired an honest man; I made answer, I thought I could fit her with such a husband; she asked me, where? I made no more ado, but presently saluted her, and told her myself was the man: she replied, I was too young; I said nay; what I had not in wealth, I would supply in love; and saluted her frequently, which she accepted lovingly; and next day at dinner made me sit down at dinner with my hat on my head, and said, she intended to make me her husband; {52}for which I gave her many salutes, &c.

I was very careful to keep all things secret, for I well knew, if she should take counsel of any friend, my hopes would be frustrated, therefore I suddenly procured her consent to marry, unto which she assented; so that upon the eighth day of September, 1627, at St. George's church in Southwark, I was married unto her, and for two whole years we kept it secret. When it was divulged, and some people blamed her for it, she constantly replied, that she had no kindred; if I proved kind, and a good husband, she would make me a man; if I proved otherwise, she only undid herself. In the third and fourth years after our marriage, we had strong suits of law with her first husband's kindred, but overthrew them in the end. During all the time of her life, which was {53}until October, 1633, we lived very lovingly, I frequenting no company at all; my exercises were sometimes angling, in which I ever delighted: my companions, two aged men. I then frequented lectures, two or three in a week; I heard Mr. Sute in Lombard-Street, Mr. Gouge of Black-Fryars, Dr. Micklethwait of the Temple, Dr. Oldsworth, with others, the most learned men of these times, and leaned in judgment to Puritanism. In October, 1627, I was made free of the Salters' company in London.

HOW I CAME TO STUDY ASTROLOGY.

It happened on one Sunday, 1632, as myself and a Justice of Peace's clerk were, before service, discoursing of many things, he chanced to say, that such a person was a great scholar, nay, so learned, that his could {54}make an Almanack, which to me then was strange: one speech begot another, till, at last, he said, he could bring me acquainted with one Evans in Gunpowder-Alley, who had formerly lived in Staffordshire, that was an excellent wise man, and studied the Black Art. The same week after we went to see Mr. Evans. When we came to his house, he, having been drunk the night before, was upon his bed, if it be lawful to call that a bed whereon he then lay; he roused up himself, and, after some compliments, he was content to instruct me in astrology; I attended his best opportunities for seven or eight weeks, in which time I could set a figure perfectly:

books he had not any, except *Haly de judiciis Astrorum*, and *Orriganus's Ephemerides*; so that as often as I entered his house, I thought I was in the wilderness. Now something of the man: he {55}was by birth a Welshman, a Master of Arts, and in sacred orders; he had formerly had a cure of souls in Staffordshire, but now was come to try his fortunes at London, being in a manner enforced to fly for some offences very scandalous, committed by him in these parts, where he had lately lived; for he gave judgment upon things lost, the only shame of astrology: he was the most saturnine person my eyes ever beheld, either before I practised or since; of a middle stature; broad forehead, beetle-browed, thick shoulders, flat nosed, full lips, down-looked, black curling stiff hair, splay-footed; to give him his right, he had the most piercing judgment naturally upon a figure of theft, and many other questions, that I ever met withal; yet for money he would willingly give contrary judgments, was much addicted to debauchery, and then very abusive and quarrelsome, {56}seldom without a black eye, or one mischief of other: this is the same Evans who made so many antimornal cups, upon the sale whereof he principally subsisted; he understood Latin very well, the Greek tongue not at all: he had some arts above, and beyond astrology, for he was well versed in the nature of spirits, and had many times used the circular way of invocating, as in the time of our familiarity he told me. Two of his actions I will relate, as to me delivered. There was in Staffordshire a young gentlewoman that had, for her preferment, married an aged rich person, who was desirous to purchase some lands for his wife's maintenance; but this young gentlewoman, his wife, was desired to buy the land in the name of a gentleman, her very dear friend, but for her use: after the aged man was dead, the widow could by no means procure {57}the deed of purchase from her friend; whereupon she applies herself to Evans, who, for a sum of money, promises to have her deed safely delivered into her own hands; the sum was forty pounds. Evans applies himself to the invocation of the angel Salmon, of the nature of Mars, reads his Litany in the *Common-Prayer-Book* every day, at select hours, wears his surplice, lives orderly all that time; at the fortnight's end Salmon appeared, and having received his commands what to do, in a

small time returns with the very deed desired, lays it down gently upon a table where a white cloth was spread, and then, being dismissed, vanished. The deed was, by the gentleman who formerly kept it, placed among many other of his evidences in a large wooden chest, and in a chamber at one end of the house; but upon Salmon's; removing and bringing away the {58}deed, all that bay of building was quite blown down, and all his own proper evidences torn all to pieces. The second story followeth.

Some time before I became acquainted with him, he then living in the Minories, was desired by the Lord Bothwell and Sir Kenelm Digby to show them a spirit. He promised so to do: the time came, and they were all in the body of the circle, when lo, upon a sudden, after some time of invocation, Evans was taken from out the room, and carried into the field near Battersea Causeway, close to the Thames. Next morning a countryman going by to his labour, and espying a man in black cloaths, came unto him and awaked him, and asked him how he came there? Evans by this understood his condition, enquired where he was, how far from London, and in what parish he was; which when he understood, he told the labourer he had been {59}late at Battersea the night before, and by chance was left there by his friends. Sir Kenelm Digby and the Lord Bothwell went home without any harm, and came next day to hear what was become of him; just as they, in the afternoon, came into the house, a messenger came from Evans to his wife, to come to him at Battersea. I enquired upon what account the spirit carried him away: who said, he had not, at the time of invocation, made any suffumigation, at which the spirits were vexed. It happened, that after I discerned what astrology was, I went weekly into Little Britain, and bought many books of astrology, not acquainting Evans therewith. Mr. A. Bedwell, Minister of Tottenham-High-Cross near London, who had been many years chaplain to Sir Henry Wotton, whilst he was Ambassador at Venice, and assisted Pietro Soave Polano, in composing {60}and writing the Council of Trent, was lately dead; and his library being sold into Little Britain, I bought amongst them my choicest books of astrology. The occasion of our falling out

was thus: a woman demanded the resolution of a question, which when he had done, she went her way; I standing by all the while, and observing the figure, asked him why he gave the judgment he did, since the signification shewed quite the contrary, and gave him my reasons; which when he had pondered, he called me boy, and must he be contradicted by such a novice! But when his heat was over, he said, had he not so judged to please the woman, she would have given him nothing, and he had a wife and family to provide for; upon this we never came together after. Being now very meanly introduced, I applied myself to study those books I had obtained, many times twelve, or {61}fifteen, or eighteen hours day and night; I was curious to discover, whether there was any verity in the art or not. Astrology in this time, viz. in 1633, was very rare in London, few professing it that understood any thing thereof. Let it not repent you (O noble Esquire) if now I make a short digression of such persons as then professed astrology, that posterity may understand in what condition I found it, and in whose hands that little that remained was lodged.

There lived then in Houndsditch one Alexander Hart, who had been a soldier formerly, a comely old man, of good aspect; he professed questionary astrology, and a little of physick; his greatest skill was to elect young gentlemen fit times to play at dice, that they might win or get money. I went unto him for resolutions for three questions at several times, and he erred in every one. {62}To speak soberly of him, he was but a cheat, as appeared suddenly after; for a rustical fellow of the city, desirous of knowledge, contracted with Hart to assist for a conference with a spirit, and paid him twenty pounds of thirty pounds the contract. At last, after many delays, and no spirit appearing, or money returned, the young man indicts him for a cheat at the Old Bailey in London; the Jury found the bill, and at the hearing of the cause this jest happened: some of the bench enquired what Hart did? 'He sat like an Alderman in his gown,' quoth the fellow; at which the court fell into a great laughter, most of the court being Aldermen. He was to have been set upon the pillory for this cheat; but John Taylour,

the Water Poet, being his great friend, got the Lord Chief Justice Richardson to bail him, ere he stood upon the pillory, and so Hart fled presently {63}into Holland, where he ended his days. It was my fortune, upon the sale of his books in 1634, to buy *Argoll's Primum Mobile* for fourteen shillings, which I only wanted.

In Lambeth Marsh at the same time lived one Captain Bubb, who resolved horary questions astrologically; a proper handsome man, well spoken, but withal covetous, and of no honesty, as will appear by this story, for which he stood upon the pillory. A certain butcher was robbed, going to a fair, of forty pounds; he goes to Bubb, who for ten pounds in hand paid, would help him to the thief; appoints the butcher such a night precisely, to watch at such a place, and the thief should come thither; commanded him by any means to stop him; the butcher attends according to direction. About twelve in the night there comes one riding very fiercely upon a full gallop, whom the butcher knocks {64}down, and seized both upon man and horse: the butcher brings the man and horse to the next town, but then the person whom the butcher attacked was John the servant of Dr. Bubb; for which the Captain was indicted and suffered upon the pillory, and afterwards ended his days in great disgrace.

There was also one Jeffry Neve, at this time a student in physic and astrology; he had formerly been a merchant in Yarmouth, and Mayor of the town, but failing in estate, went into the Low-Countries, and at Franecker took the degree, of doctor in Physick; he had some little smattering in astrology; could resolve a question of theft, or love-question, something of sickness; a very grave person, laborious and honest, of tall stature and comely feature; he died of late years, almost in the very street near Tower-Hill: he had a design of printing two hundred {65}verified questions, and desired my approbation ere they went to press; that I first would see them, and then give testimony. When I had perused the first forty, I corrected thirty of them, would read over no more: I showed him how erroneous they were, desired his emendation of the rest, which he

performed not. These were afterwards, in R. Saunders's custody, bought by him either of his son or of a stationer.[2]

Footnote 2:(return)

But first offered to be sold to me for twenty shillings. When Mr. Saunders died I bought them of his son for less. E. A——.

There was then William Poole, a nibbler at astrology, sometimes a gardener, an apparitor, a drawer of linen; as quoifs, handkerchiefs; a plaisterer and a bricklayer; he would brag many times he had been of seventeen professions; was very good company for drolling, as you yourself very well remember {66}(most honoured Sir);[3] he pretended to poetry; and that posterity may have a taste of it, you shall have here inserted two verses of his own making; the occasion of making them was thus. One Sir Thomas Jay, a Justice of the Peace in Rosemary-Lane, issued out his warrant for the apprehension of Poole, upon a pretended suggestion, that he was in company with some lewd people in a tavern, where a silver cup was lost, *Anglice* stolen. Poole, hearing of the warrant, packs up his little trunk of books, being all his library, and runs to Westminster; but hearing some months after that the Justice was dead and buried, he came and enquired where the grave was; and after the discharge of his belly upon the grave, left {67}these two verses upon it, which he swore he made himself.

Here lieth buried Sir Thomas Jay, Knight,
Who being dead, I upon his grave did shite.

Footnote 3:(return)

December 17, this William Poole was married to Alice How, at St. George's Church in Southwark. Mr. Lilly gave her to him.

He died about 1651, or 1652, at St. Mary Overy's in Southwark; and this was part of his last will.

'Item; I give to Dr. Ardee all my books, and one manuscript of my own, worth one hundred of Lilly's Introduction.'

'Item; If Dr. Ardee give my wife any thing that is mine, I wish the devil may fetch him body and soul.' The Doctor, terrified with this curse, gave me all the books and his goods which I presently gave to his widow.—-*Interdum seria jocis*.

Now also lived this Dr. Ardee, but his true name was Richard Delahay, formerly an Attorney; he studied astrology and physick, being in necessity, and forced from Derbyshire, {68}where he had lived, by the old Countess of Shrewsbury; he was of moderate judgment, both in astrology and physick. He had formerly been well acquainted with Charles Sledd,[4] an apothecary, who used the crystal, and had a very perfect sight. This Dr. Ardee hath many times affirmed unto me, (*esto fides*) that an angel, one time, appeared unto him, and offered him a lease of his life for one thousand years; he died about the age of fourscore years; left his widow, who married into Kent,[5] worth two or three thousand pounds, and William Poole's estate came to four or five pounds.

Footnote 4:(return)

Of this Charles Sledd, there is mention made in Dr. Dee's book of his discourse with spirits, set forth by Dr. Casaubon.

Footnote 5:(return)

To one Moreland.

In the years 1632 and 1633, John Booker became famous for a prediction of his upon a {69}solar eclipse in the 19th degree of Aries 1663, taken out of *Leovitius de magnis conjunctionibus*, viz. *Oh Reges et Principes &c.* Both the King of Bohemia, and Gustavus King of Sweden, dying during the effects of that eclipse.

John Booker was born in Manchester, of good parentage, in the year 1601; was in his youth well instructed in the Latin tongue, which he understood very well. He seemed from his infancy to be designed for astrology; for from the time he had any understanding, he would be always poring on, and studying almanacks. He came to London at fitting years, and served an apprenticeship to an haberdasher in Laurence-Lane, London; but either wanting stock to setup, or disliking the calling, he left his trade, and taught to write at Hadley in Middlesex several scholars in that school: he wrote singularly well both {70}Secretary and Roman. In process of time he served Sir Christopher Clethero, Knight, Alderman of London, as his clerk, being a city Justice of Peace: he also was clerk to Sir Hugh Hammersley, Alderman of London, both which he served with great credit and estimation; and by that means became not only well known, but as well respected of the most eminent citizens of London, even to his dying day.

He was an excellent proficient in astrology, whose excellent verses upon the twelve months, framed according to the configurations of each month, being blessed with success according to his predictions, procured him much reputation all over England: he was a very honest man, abhorred any deceit in the art he studied; had a curious fancy in judging of thefts, and as successful in resolving love-questions: he was no mean proficient {71}in astronomy; he understood much of physick; was a great admirer of the antimonial cup; not unlearned in chymistry, which he loved well, but did not practise. He was inclined to a diabetes; and in the last three years of his life was afflicted with a dysentery, which at last consumed him to nothing: he died of good fame in 1667. Since his decease I have seen one nativity of his performance exactly directed, and judged with as much learning as from astrology can be expected.

His library of books came short of the world's approbation, and were by his widow sold to Elias Ashmole, Esq. who most generously gave her[6] far more money than they were

worth; but out of his respects unto the deceased and his memory, he most willingly {72}paid her the money. He left behind him two sons and two daughters. He left in writing very little but his annual prognostications. He began first to write about the year 1630; he wrote *Bellum Hibernicale*, in the time of the long parliament, a very sober and judicious book: the epistle thereunto I gave him. He wrote lately a small treatise of Easter-Day, a very learned thing, wherein he shewed much learning and reading. To say no more of him, he lived an honest man, his fame not questioned at his death.

Footnote 6:(return)

They cost me one hundred and forty pounds.

In this year 1633, I became acquainted with Nicholas Fiske, licentiate in physick, who was born in Suffolk, near Framingham[7] Castle, of very good parentage, who educated him at country schools, until he was fit for the university; but he went not to the {73}academy, studying at home both astrology and physick, which he afterwards practised in Colchester; and there was well acquainted with Dr. Gilbert, who wrote *De Magnete*. He came afterwards unto London, and exercised his faculty in several places thereof. (For in his youth he would never stay long in one house.) In 1633 he was sent for out of Suffolk by Dr. Winston of Gresham College, to instruct the Lord Treasurer Weston's son in arithmetick, astronomy upon the globes, and their uses. He was a person very studious, laborious, of good apprehension, and had by his own industry obtained both in astrology, physick, arithmetick, astronomy, geometry and algebra, singular judgment: he would in astrology resolve horary questions very soundly; but was ever diffident of his own abilities: he was exquisitely skilful in the art of directions upon {74}nativities, and had a good genius in performing judgment thereupon, but very unhappy he was, that he had no genius in teaching his scholars, for he never perfected any: his own son Matthew hath often told me, that where his father did teach any

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scholars in his time, they would principally learn of him; he had Scorpio ascending, and was secretly envious to those he thought had more parts than himself; however, I must be ingenuous, and do affirm, that by frequent conversation with him, I came to know which were the best authors, and much to enlarge my judgment, especially in the art of directions: he visited me most days once after I became acquainted with him, and would communicate his most doubtful questions unto me, and accept of my judgment therein rather than his own: he singularly well judged and directed Sir Robert Holborn's {75}nativity, but desired me to adjudge the first house, seventh and tenth thereof, which I did, and which nativity (since Sir Robert gave it me) came to your hands, and remains in your library; [oh learned Esquire!] he died about the seventy-eighth year of his age, poor.

Footnote 7:(return)

There is no such place in Suffolk, it being mistaken for Framlingham in that county.

In this year also William Bredon, parson or vicar of Thornton in Buckinghamshire, was living, a profound divine, but absolutely the most polite person for nativities in that age, strictly adhering to Ptolemy, which he well understood; he had a hand in composing Sir Christopher Heydon's *Defence of Judicial Astrology*, being that time his chaplain; he was so given over to tobacco and drink, that when he had no tobacco, he would cut the bell-ropes and smoke them.

I come now to continue the story of my own life, but thought it not inconvenient to {76}commit unto memory something concerning those persons who practised when first I became a student in astrology; I have wrote nothing concerning any of them, which I myself do not either know, or believe to be true.

In October 1633 my first wife died, and left me whatever was hers: it was considerable, very near to the value of one thousand pounds.

One whole year and more I continued a widower, and followed my studies very hard; during which time a scholar pawned unto me, for forty shillings, *Ars Notoria*,[8] a large volume wrote in parchment, with the names of those angels, and their pictures, which are thought and believed by wise men, to teach and instruct in all the several {77}liberal sciences, and is attained by observing elected times, and those prayers appropriated unto the several angels.

Footnote 8:(return)

Among Dr. Napier's MSS. I had an *Ars Notoria*, written by S. Forman in large vellum.

I do ingenuously acknowledge, I used those prayers according to the form and direction prescribed for some weeks, using the word *astrologia* for *astronomia*; but of this no more: that *Ars Notoria*, inserted in the latter end of Cornelius Agrippa signifieth nothing; many of the prayers being not the same, nor is the direction to these prayers any thing considerable.

In the year 1634, I taught Sir George Peckham, Knight, astrology, that part which concerns sickness, wherein he so profited, that in two or three months he would give a very true discovery of any disease, only by his figures. He practised in Nottingham, but unfortunately died in 1635, at St. Winifred's Well in Wales; in which well he continued {78}so long mumbling his *Pater Nosters* and *Sancta Winifrida ora pro me*, that the cold struck into his body; and, after his coming forth of that well, never spoke more.

In this year 1634, I purchased the moiety of thirteen houses in the Strand for five hundred and thirty pounds.

In November, the 18th day, I was again the second time married, and had five hundred pounds portion with that wife; she was of the nature of Mars.

Two accidents happened to me in that year something memorable.

Davy Ramsey, his Majesty's clock-maker, had been informed, that there was a great quantity of treasure buried in the cloyster of Westminster-Abbey; he acquaints Dean Williams therewith, who was also then Bishop of Lincoln; the Dean gave him liberty to search after it, with this proviso, that if {79}any was discovered, his church should have a share of it. Davy Ramsey finds out one John Scott,[9] who pretended the use of the Mosaical rods, to assist him herein: I was desired to join with him, unto which I consented. One winter's night, Davy Ramsey, with several gentlemen, myself, and Scott, entered the cloysters; we played the hazel-rod round about the cloyster; upon the west-side of the cloysters the rods turned one over another, an argument that the treasure was there. The labourers digged at least six foot deep, and then we met with a coffin; but in regard it was not heavy, we did not open, which we afterwards much repented. From the cloysters we went into the Abbey church, where, upon a sudden, (there being no wind when we began) so fierce, so high, so blustering {80}and loud a wind did rise, that we verily believed the west-end of the church would have fallen upon us; our rods would not move at all; the candles and torches, all but one, were extinguished, or burned very dimly.[10] John Scott, my partner, was amazed, looked pale, knew not what to think or do, until I gave directions and command to dismiss the dæmons; which when done, all was quiet again, and each man returned unto his lodging late, about twelve o'clock at night; I could never since be induced to join with any in such-like actions.

Footnote 9:(return)

This Scott lived in Pudding-Lane, and had some time been a page (or such like) to the Lord Norris.

Footnote 10:(return)

Davy Ramsey brought an half quartern sack to put the treasure in.

The true miscarriage of the business, was by reason of so many people being present at the operation; for there was about thirty, some laughing, others deriding us; so that if we had not dismissed the dæmons, I believe {81}most part of the Abbey church had been blown down; secrecy and intelligent operators, with a strong confidence and knowledge of what they are doing, are best for this work.

In 1634, or 1635, a Lady living in Greenwich, who had tried all the known artists in London, but to no purpose, came weeping and lamenting her condition, which was this: she had permitted a young Lord to have the use of her body, till she was with child by him; after which time he could not or would not endure her sight, but commanded his lacquies and servants to keep his doors fast shut, lest she should get into his chamber; or if they chanced to see her near his lodging, to drive her away, which they several times had done. Her desire unto me was to assist her to see him, and then she should be content; whereupon I ordered, such {82}a day, such an hour of that day, to try her fortune once more. She obeyed; and when she came to the King's Bench, where the Lord there was imprisoned, the outward door stood wide open: none speaking a word unto her, she went up stairs, no body molesting her; she found the Lord's chamber door wide open: he in bed, not a servant to be heard or seen, so she was pleased. Three days after she came to acquaint me with her success, and then drew out of her pocket a paper full of ratsbane, which, had she not had admission unto him that day I appointed, she would in a pint of white wine have drank at the stair's foot where the Lord lodged. The like misfortune befell her after that; when the Lord was out of prison: then I ordered her such a day to go and see a play at Salisbury-Court; which she did, and within one quarter of an hour {83}the Lord came into the same box wherein she was. But I grew weary of such employments, and since have burned my books which instructed these curiosities: for after that I became melancholy, very much afflicted with the hypochondriack, growing lean and spare, and every day worse; so that in the year 1635 my infirmity continuing, and my acquaintance increasing, I resolved to live in the country, and in

March and April 1636 removed my goods unto Hersham, where I now live; and in May my person, where I continued until 1641, no notice being taken who, or what I was.

In the years 1637 and 1638, I had great lawsuits both in the Exchequer and Chancery, about a lease I had of the annual value of eighty pounds: I got the victory.

In the year 1640 I instructed John Humphreys, master of that art, in the study of {84}astrology: upon this occasion, being at London, by accident in Fleet-Street, I met Dr. Percival Willoughby of Derby; we were of old acquaintance, and he but by great chance lately come to town, we went to the Mitre-Tavern in Fleet-Street, where I sent for old Will Poole the astrologer, living then in Ram-Alley: being come to us, the Doctor produced a bill, set forth by a master of arts in Cambridge, intimating his abilities for resolving of all manner of questions astrologically. The bill was shewed, and I wondering at it Poole made answer, he knew the man, and that he was a silly fool; 'I,' quoth he, 'can do more than he; he sees me every day, he will be here by and by;' and indeed he came into our room presently: Poole had, just as we came to him, set a figure, and then shewed it me, desiring my judgement; which I refused, but desired the master of arts to {85}judge first; he denied, so I gave mine, to the very great liking of Humphreys, who presently enquired, if I would teach him, and for what? I told him I was willing to teach, but would have one hundred pounds. I heard Poole, whilst I was judging the figure, whisper in-Humphrey's ear, and swear I was the best in England. Staying three or four days in town, at last we contracted for forty pounds, for I could never be quiet from his solicitations; he invited me to supper, and before I had shewed him any thing, paid me thirty-five pounds. As we were at supper a client came to speak with him, and so up into his closet he went with his client; I called him in before he set his figure, or resolved the question, and instantly acquainted him how he should discover the moles or marks of his client: he set his figure, and presently discovers four moles the querent {86}had; and was so overjoyed therewith, that he came tumbling

down the stairs, crying, 'Four by G——, four by G——, I will not take one hundred pounds for this one rule.' In six weeks time, and tarrying with him three days in a week, he became a most judicious person.

This Humphreys was a laborious person, vain-glorious, loquacious, fool-hardy, desirous of all secrets which he knew not, insomuch that he would have given me two hundred pounds to have instructed him in some curiosities he was persuaded I had knowledge of, but, *Artis est celare artem*, especially to those who live not in the fear of God, or can be masters of their own counsels: he was in person and condition such another as that monster of ingratitude my *quondam* taylor, John Gadbury. After my refusal of teaching him, what he was not capable of, we grew strange, though I afforded him many civilities {87}whenever he required it; for after the siege of Colchester he wrote a book against me, called *Anti Merlinus-Anglicus*, married a second wife, his first living in Cambridgeshire, then practised physick by a contrary name, having intentions to practise in Ireland; he went to Bristol, but there understanding the parliament's forces had reduced that kingdom, he came back to London, but durst not abide therein; but turning from his second wife, who also had another husband, he went to sea, with intention for Barbadoes, but died by the way in his voyage. I had never seen John Booker at that time; and telling him one day I had a desire to see him, but first, ere I would speak with him, I would fit myself with my old rules, and rub up my astrology; for at that time (and this was 1640) I thought John Booker the greatest and most complete astrologer in the world. My scholar {88}Humphreys presently made answer, 'Tutor, you need not pump for any of your former knowledge, John Booker is no such pumper; we met,' saith he, 'the other day, and I was too hard for him myself, upon judgment of three or four questions.' If all the transactions happening unto that my scholar were in one volume, they would transcend either *Guzman*, *Don Quixote*, *Lazarillo de Tormes*, or any other of the like nature I ever did see.

Having now in part recovered my health, being weary of the country, and perceiving there was money to be got in London, and thinking myself to be as sufficiently enabled in astrology as any I could meet with, I made it my business to repair thither; and so in September 1641 I did; where, in the years 1642 and 1643, I had great leisure to better my former knowledge: I then read over all {89}my books of astrology, over and over; had very little or no practice at all: and whereas formerly I could never endure to read *Valentine Naibod's Commentary upon Alcabitius*, now having seriously studied him, I found him to be the profoundest author I ever met with; him I traversed over day and night, from whom I must acknowledge to have advanced my judgment and knowledge unto that height I soon after arrived at, or unto: a most rational author, and the sharpest expositor of *Ptolemy* that hath yet appeared. To exercise my genius, I began to collect notes, and thought of writing some little thing upon the [symbol: aspect "conjunction"] of [symbol: Saturn] and [symbol: Jupiter] then approaching: I had not wrote above one sheet, and that very meanly, but James Lord Galloway came to see me; and, by chance, casting his eyes upon that rude collection, he read it over, and so approved {90}of it, yea, so encouraged me to proceed farther, that then, and after that time, I spent most of my time in composing thereof, and bringing it, in the end, into that method wherein it was printed 1644. I do seriously now profess, I had not the assistance of any person living, in the writing or composing thereof. Mr. Fiske sent me a small manuscript, which had been Sir Christopher Heydon's, who had wrote something of the conjunction of [symbol: Saturn] and [symbol: Jupiter], 1603; out of which, to bring my method in order, I transcribed, in the beginning, five or six lines, and not any more, though that graceless fellow Gadbury wrote the contrary: but, *Semel et semper nebulo et mendax*. I did formerly write one treatise, in the year 1639, upon the eclipse of the sun, in the eleventh degree of Gemini, May 22, 1639; it consisted of six sheets of paper. But that manuscript I gave {91}unto my most munificent patron and ever bountiful friend, William Pennington, of Muncaster in Cumberland, Esq., a wise and excellently learned person; who, from the year 1634, even till he died, continued unto me the most

grateful person I ever was acquainted with. I became acquainted with him by means of Davy Ramsey.

Oh! most noble Esquire, let me now beg your pardon, if I digress for some small time, in commemorating his bounty unto me, and my requital of his friendship, by performing many things successfully for his advantage.

In 1639 he was made captain, and served his Majesty in his then wars against the Scots; during which time a farmer's daughter being delivered of a bastard, and hearing, by report, that he was slain, fathered the child upon him. Shortly after he returned, most woefully vexed to be thus abused, when {92}absent. The woman was countenanced by some gentlemen of Cumberland, in this her villany against him; so that, notwithstanding he had warrants to attach her body, he could never discover her: but yet, hunting her from one place to another, her friends thought it most convenient to send her to London, where she might be in most safety. She came up to the city, and immediately I had notice thereof, and the care of that matter was left unto me. I procured the Lord Chief Justice Bramston's warrant, and had it lying dormant by me. She had not been in the city above one fortnight, but that I, going casually to the clerk of the assizes' office for Cumberland, saw there an handsome woman; and hearing of her speak the northern tone, I concluded she was the party I did so want. I rounded the clerk in his ear, and told him I would give him five shillings to hold the {93}woman in chat till I came again, for I had a writing concerned her. I hasted for my warrant, and a constable, and returned into the office, seized her person before the clerk of the assizes, who was very angry with me: it was then sessions at Old-Bayley, and neither Judge nor Justice to be found. At night we carried her before the Recorder, Gardner. It being Saturday at night, she, having no bail, was sent to Bridewell, where she remained till Monday. On Monday morning, at the Old-Bayley, she produced bail; but I desiring of the Recorder some time to enquire after the bail, whether they were sufficient, returned presently, and told him

one of the bail was a prisoner in Ludgate, the other a very poor man. At which he was so vexed, that he sent her to Newgate, where she lay all that week, until she could please me with good sureties; which then {94}she did, and so was bound over to appear at the next assizes in Cumberland; which she did, and was there sentenced to be whipped, and imprisoned one whole year.

This action infinitely pleased Mr. Pennington, who thought I could do wonders; and I was most thankfully requited for it. All the while of this scandalous business, do what he could, he could not discover what persons they were that supported her; but the woman's father coming to town, I became acquainted with him, by the name of Mr. Sute, merchant; invited him to a dinner; got George Farmer with me; when we so plied him with wine, he could neither see or feel. I paid the reckoning, twenty-two shillings. But next morning the poor man had never a writing or letter in his pocket. I sent them down to my friend, who thereby discovered the plots of several gentlemen in the business; {95}after which, Mr. Sute returned to his old name again.

Mr. Pennington was a true royalist, whom Charles the Second made one of his Commissioners of Array for Cumberland. Having directions from me continually how matters did and would go betwixt the King and Parliament, he acted warily, and did but sign one only warrant of that nature, and then gave over. When the times of sequestrations came, one John Musgrave, the most bold and impudent fellow, and most active of all the north of England, and most malicious against my friend, had got this warrant under Mr. Pennington's hand into his custody; which affrighted my friend, and so it might, for it was cause enough of sequestration, and would have done it. Musgrave intending himself great matters out of his estate, I was made acquainted herewith. Musgrave {96}being in London, by much ado, I got acquainted with him, pretending myself a bitter enemy against Pennington, whereat he very heartily rejoiced; and so we appointed one night to meet at the Five Bells, to compare notes; for I pretended much.

We did meet, and he very suddenly produced upon the table all his papers, and withal, the warrant of array unto which my friend had set his hand; which when I saw, 'I marry,' said I, 'this is his hand I will swear; now have at all come, the other cup, this warrant shall pay for all.' I observed where the warrant lay upon the table, and, after some time took occasion ignorantly to let the candle fall out, which whilst he went to light again at the fire, I made sure of the warrant, and put it into my boot; he never missing it of eight or ten days; about which time, I believe, it was above half way towards Cumberland, {97}for I instantly sent it by the post, with this friendly caveat, '*Sin no more*.' Musgrave durst not challenge me in those times, and so the business was ended very satisfactory to his friend, and no less to myself.

He was, besides, extremely abused by one Isaac Antrobus, parson of Egremond, a most evil liver, bold, and very rich; at last he procured a minister of that country, in hope of the parsonage, to article against him in London, before the committee of plundered ministers. I was once more invited to solicit against Antrobus, which I did upon three or more articles.

I. That Antrobus baptized a cock, and called him Peter.

II. He had knowledge of such a woman and of her daughter, *viz.* of both their bodies, {98}in as large a manner as ever of his own wife.

III. Being drunk, a woman took a cord and tied it about his privy members unto a manger in a stable.

IV. Being a continual drunkard.

V. He never preached, &c.

Antrobus was now become a great champion for the Parliament; but, at the day of hearing, I had procured abundance of my friends to be there; for the godly, as they termed themselves, sided with him; the present Master of the Rolls was Chairman that day, Sir Harbottle Grimston.

Who, hearing the foulness of the cause, was very much ashamed thereof. I remember Antrobus, being there, pleaded he was in his natural condition when he acted so ungraciously.

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'What condition were you in,' said the Chairman, 'when you lay with mother and daughter?'

'There is no proof of that,' saith he.

'None but your own confession,' said the Chairman, 'nor could any tell so well.'

'I am not given to drunkenness,' quoth he. 'He was so drunk within this fortnight,' quoth I, 'he reeled from one side of the street to the other; here is the witness to prove it:' who, presently, before the committee, being sworn, made it good, and named the place and street where he was drunk. So he was adjudged scandalous, and outed of his benefice, and our minister had the parsonage.

You cannot imagine how much the routing of this drunken parson pleased Mr. Pennington, who paid all charges munificently and thankfully.

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But now follows the last and greatest kindness I ever did him. Notwithstanding the committee for sequestrations in Cumberland were his very good friends, yet the sub-sequestrators, of their own heads, and without order, and by strength of arms, secured

his irons, his wood, and so much of his personal estate as was valued at seven thousand pounds. Now had I complaint upon complaint: would I suffer my old friend to be thus abused? it was in my power to free him from these villains.

I hereupon advised what was best to do, and was counselled to get Mr. Speaker Lenthall's letter to the sub-sequestrators, and command them to be obedient to the committee of the county.

Whereupon, I framed a letter myself, unto the sub-sequestrators directed, and with it, myself and Mr. Laurence Maydwell (whom {101}yourself well knew) went to Mr. Speaker, unto whom we sufficiently related the stubbornness of the officers of Cumberland; their disobedience to the committee; and then shewed him the letter, which when he had read over, he most courteously signed, adding withal, that if they proceeded further in sequestring Mr. Pennington, he would command a Serjeant at Arms to bring them up to answer their contempts: I immediately posted that letter to my friend, which when the absurd fellows received, they delivered him possession of his goods again; and, for my pains, when he came to London, gave me one hundred pounds; he died in 1652, of a violent fever. I did carefully, in 1642 and 1643, take notice of every grand action which happened betwixt King and Parliament, and did first then incline to believe, that as all sublunary affairs did depend upon superior {102}causes, so there was a possibility of discovering them by the configurations of the superior bodies; in which way making some essays in those two years, I found encouragement to proceed further, which I did; I perused the writings of the ancients, but therein they were silent, or gave no satisfaction; at last, I framed unto myself that method, which then and since I follow, which, I hope, in time may be more perfected by a more penetrating person than myself.

In 1643, I became familiarly known to Sir Bulstrode Whitlocke, a member of the House of Commons; he being sick, his urine was brought unto me by Mrs. Lisle,[11] wife to

John {103}Lisle, afterwards one of the keepers of the Great Seal; having set my figure, I returned answer, the sick for that time would recover, but by means of a surfeit would dangerously relapse within one month; which he did, by eating of trouts at Mr. Sand's house, near Leatherhead in Surrey. Then I went daily to visit him, Dr. Prideau despairing of his life; but I said there was no danger thereof, and that he would be sufficiently well in five or six weeks; and so he was.

Footnote 11:(return)

She was afterwards beheaded at Winchester, for harbouring one Nelthrop, a rebel in the Duke of Monmouth's army 1685. She had made herself remarkable, by saying at the martyrdom of King Charles I, 1648, 'that her blood leaped within her to see the tyrant fall;' for this, when she fell into the state trap, she neither did nor could expect favour from any of that martyr's family.

In 1644, I published *Merlinus Anglicus Junior* about April. I had given one day the copy thereof unto the then Mr. Whitlocke, who by accident was reading thereof in the House of Commons: ere the Speaker took {104}the chair, one looked upon it, and so did many, and got copies thereof; which when I heard, I applied myself to John Booker to license it, for then he was licenser of all mathematical books; I had, to my knowledge, never seen him before; he wondered at the book, made many impertinent obliterations, framed many objections, swore it was not possible to distinguish betwixt King and Parliament; at last licensed it according to his own fancy; I delivered it unto the printer, who being an arch Presbyterian, had five of the ministry to inspect it, who could make nothing of it, but said it might be printed, for in that I meddled not with their Dagon. The first impression was sold in less than one week; when I presented some to the members of Parliament, I complained of John Booker the licenser, who had defaced my book; they gave me order forthwith to reprint {105}it as I would, and let them know if any durst resist me in the reprinting, or adding what I thought fit; so the second time it came forth as I would have it.

I must confess, I now found my scholar Humphreys's words to be true concerning John Booker, whom at that time I found but moderately versed in astrology; nor could he take the circles of position of the planets, until in that year I instructed him. After my *Introduction* in 1647 became publick, he amended beyond measure, by study partly, and partly upon emulation to keep up his fame and reputation; so that since 1647, I have seen some nativities by him very judiciously performed. When the printer presented him with an *Introduction* of mine, as soon as they were forth of the press; 'I wish,' saith he, 'there was never another but this in England, conditionally I gave one hundred pounds for {106}this.' After that time we were very great friends to his dying day.

In June, 1644, I published *Supernatural Sight*; and, indeed, if I could have procured the dull stationer to have been at charges to have cut the *icon* or form of that prodigious apparition, as I had drawn it forth, it would have given great satisfaction; however, the astrological judgment thereupon had its full event in every particular.

That year also I published the *White King's Prophecy*, of which there were sold in three days eighteen hundred, so that it was oft reprinted: I then made no commentary upon it.

In that year I printed the *Prophetical Merlin*, and had eight pounds for the copy.

I had then no farther intention to trouble the press any more, but Sir Richard Napper having received one of Captain Wharton's {107}*Almanacks* for 1645, under the name Naworth, he came unto me: 'Now, Lilly, you are met withal, see here what Naworth writes.' The words were, he called me 'an impudent senseless fellow, and by name William Lilly.'

Before that time, I was more Cavalier than Roundhead, and so taken notice of; but after that I engaged body and soul in the cause of Parliament, but still with much affection to his Majesty's person and unto monarchy, which I ever loved and approved beyond any government whatsoever; and you will find in this story many passages of civility which

I did, and endeavoured to do, with the hazard of my life, for his Majesty: but God had ordered all his affairs and counsels to have no successes; as in the sequel will appear.

To vindicate my reputation, and to cry quittance with Naworth, against whom I was {108}highly incensed, to work I went again for *Anglicus*, 1645; which as soon as finished I got to the press, thinking every day one month till it was publick: I therein made use of the King's nativity, and finding that his ascendant was approaching to the quadrature of Mars, about June, 1645, I gave this unlucky judgment; 'If now we fight, a victory stealeth upon us;' and so it did in June, 1645, at Naseby, the most fatal overthrow he ever had.

In this year, 1645, I published a treatise called the *Starry Messenger*, with an interpretation of three suns seen in London, 29th May, 1644, being Charles the Second's birthday: in that book I also put forth an astrological judgment concerning the effects of a solar eclipse, visible the 11th of August, 1645. Two days before its publishing, my antagonist, Captain Wharton, having given {109}his astronomical judgment upon his Majesty's present march from Oxford; therein again fell foul against me and John Booker: Sir Samuel Luke, Governor of Newportpagnel, had the thing came to his garrison from Oxford, which presently was presented unto my view. I had but twelve hours, or thereabout, to answer it, which I did with such success as is incredible; and the printer printed both the *March* and my answer unto it, and produced it to sight, with my *Starry Messenger*, which came forth and was made publick the very day of the Parliament's great victory obtained against his Majesty in person at Naseby, under the conduct of the Lord Thomas Fairfax.

That book no sooner appeared, but within fourteen days complaint was made to the committee of examinations, Miles Corbet then being Chairman, my mortal enemy, he {110}who after was hanged, drawn, and quartered, for being one of the King's Judges; he grants his warrant, and a messenger to the Serjeant at Arms seizeth my person. As I

was going to Westminster with the messenger, I met Sir Philip Stapleton, Sir Christopher Wray, Mr. Denzil Hollis, Mr. Robert Reynolds, who, by great fortune, had the *Starry Messenger* sheet by sheet from me as it came from the press. They presently fell a smiling at me; 'Miles Corbet, Lilly, will punish thee soundly; but fear nothing, we will dine, and make haste to be at the committee time enough to do the business;' and so they most honourably performed; for they, as soon as they came, sat down, and put Mr. Reynolds purposely into the chair, and I was called in; but Corbet being not there, they bid me withdraw until he came; which when he did, I was commanded to appear, and Corbet {111}desired to give the cause of my being in restraint, and of the committee's order. Mr. Reynolds was purposely put into the chair, and continued till my business was over.

Corbet produced my *Anglicus* of 1645, and said there were many scandalous passages therein against the Commissioners of Excise in London. He produced one passage, which being openly read by himself, the whole committee adjudged it to signify the errors of sub-officers, but had no relation to the Commissioners themselves, which I affirmatively maintained to be the true meaning as the committee declared.

Then Corbet found out another dangerous place, as he thought, and the words were thus in the printed book—'In the name of the Father, Son, and Holy Ghost, will not the Excise pay the soldiers?'

Corbet very ignorantly read, 'will not the {112}Eclipse pay soldiers?' at which the Committee fell heartily to laugh at him, and so he became silent.

There was a great many Parliament men there; the chamber was full. 'Have you any more against Mr. Lilly?' cried the chairman.

'Yes,' saith the Sollicitor for the Excise, 'since his *Starry Messenger* came forth we had our house burnt, and the Commissioners pulled by their cloaks in the Exchange.' 'Pray,

sir, when was this,' asked old Sir Robert Pye, 'that the house was burnt, and the Aldermen abused?' 'It was in such a week,' saith he. 'Mr. Lilly, when came the book forth?' 'The very day of Naseby fight,' answered Mr. Reynolds, 'nor needs he be ashamed of writing it: I had it daily as it came forth of the press: it was then found the house to be burnt, and the Aldermen {113}abused, twelve days before the *Starry Messenger* came forth.' 'What a lying fellow art thou,' saith Sir Robert Pye, 'to abuse us so!' This he spoke to the Sollicitor. Then stood up one Bassell, a merchant: he inveighed bitterly against me, being a Presbyterian, and would have had my books burnt. 'You smell more of a citizen than a scholar,' replied Mr. Francis Drake. I was ordered to withdraw, and by and by was called in, and acquainted the committee did discharge me. But I cried with a loud voice, 'I was under a messenger;' whereupon the committee ordered him or the Serjeant at Arms not to take any fees; Mr. Reynolds saying, 'Literate men never pay any fees.'

But within one week after, I was likely to have had worse success, but that the before-named gentlemen stoutly befriended me. In my Epistle of the *Starry Messenger*, I had {114}been a little too plain with the committee of Leicestershire; who thereof made complaint unto Sir Arthur Hazelrigg, Knight for that county; he was a furious person, and made a motion in the House of Commons against me, and the business was committed to that committee, whereof Baron Rigby was chairman. A day was assigned to hear the matter; in the morning whereof, as I passed by Mr. Pullen's shop in St. Paul's Church-yard, Pullen bad 'God be with you,' and named me by name. Mr. Selden being there, and hearing my name, gave direction to call me unto him, where he acquaints me with Hazelrigg's humour and malice towards me, called for the *Starry Messenger*, and having read over the words mentioning that committee, he asked me how I would answer them? I related what I would have said, but he contradicted me, and acquainted me {115}what to say, and how to answer. In the afternoon I went to appear, but there was no committee set, or would sit; for both Mr. Reynolds and Sir Philip Stapleton, and

my other friends, had fully acquainted Baron Rigby with the business, and desired him not to call upon me until they appeared; for the matter and charge intended against me was very frivolous, and only presented by a cholerick person to please a company of clowns, meaning the committee of Leicester. Baron Rigby said, if it were so he would not meddle with the matter, but exceedingly desired to see me. Not long after he met Sir Arthur, and acquainting him what friends appeared for me, said, 'I will then prosecute him no further.'

All the ancient astrologers of England were much startled and confounded at my manner of writing, especially old Mr. William Hodges, {116}who lived near Wolverhampton in Staffordshire, and many others who understood astrology competently well, as they thought. Hodges swore I did more by astrology than he could by the crystal, and use thereof, which indeed he understood as perfectly as any one in England. He was a great royalist, but could never hit any thing right for that party, though he much desired it: he resolved questions astrologically; nativities he meddled not with; in things of other nature, which required more curiosity, he repaired to the crystal: his angels were Raphael, Gabriel, and Uriel: his life answered not in holiness and sanctity to what it should, having to deal with those holy angels. Being contemporary with me, I shall relate what my partner John Scott, the same Scott as is before-mentioned, affirmed of him. John Scott was a little skilful in surgery and physick, {117}so was Will Hodges, and had formerly been a school-master. Scott having some occasions into Staffordshire, addressed himself for a month or six weeks to Hodges, assisted him to dress his patients, let blood, &c. Being to return to London, he desired Hodges to shew him the person and feature of the woman he should marry. Hodges carries him into a field not far from his house, pulls out his crystal, bids Scott set his foot to his, and, after a while, wishes him to inspect the crystal, and observe what he saw there. 'I see,' saith Scott, 'a ruddy complexioned wench in a red waistcoat, drawing a can of beer.' 'She must be your wife,' said Hodges. 'You are mistaken, Sir,' said Scott. 'I am, so soon as I come to London, to

marry a tall gentlewoman in the Old Bailey.' 'You must marry the red waistcoat,' said Hodges. Scott leaves the country, {118}comes up to London, finds his gentlewoman married: two years after going into Dover, in his return, he refreshed himself at an inn in Canterbury, and as he came into the hall, or first room thereof, he mistook the room, and went into the buttery, where he espied a maid, described by Hodges, as before said, drawing a can of beer, &c. He then more narrowly viewing her person and habit, found her, in all parts, to be the same Hodges had described; after which he became a suitor unto her, and was married unto her; which woman I have often seen. This Scott related unto me several times, being a very honest person, and made great conscience of what he spoke. Another story of him is as followeth, which I had related from a person which well knew the truth of it.

A neighbour gentleman of Hodges lost his {119}horse; who having Hodges's advice for recovery of him, did again obtain him. Some years after, in a frolick, he thought to abuse him, acquainting a neighbour therewith, viz., that he had formerly lost a horse, went to Hodges, recovered him again, but saith it was by chance; I might have had him without going unto him: 'Come, let's go, I will now put a trick upon him; I will leave some boy or other at the town's-end with my horse, and then go to Hodges and enquire for him.' He did so, gave his horse to a youth, with orders to walk him till he returned. Away he goes with his friend, salutes Mr. Hodges, thanks him for his former courtesy, and now desires the like, having lost a horse very lately. Hodges, after some time of pausing, said; 'Sir, your horse is lost, and never to be recovered.' 'I thought what skill you had,' replies the gallant, 'my horse is walking {120}in a lane at the town's-end.' With that Hodges swore (as he was too much given unto that vice) 'your horse is gone, and you will never have him again.' The gentleman departed in great derision of Hodges, and went where he left his horse: when he came there, he found the boy fast asleep upon the ground, the horse gone, the boy's arm in the bridle.

He returns again to Hodges, desiring his aid, being sorry for his former abuse. Old Will swore like a devil, 'be gone, be gone; go look for your horse.' This business ended not so; for the malicious man brought Hodges into the star-chamber, bound him over to the assizes, put Hodges to great expences: but, by means of the Lord Dudley, if I remember aright, or some other person thereabouts, he overcame the gentleman, and was acquitted.

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Besides this, a gentlewoman of my acquaintance, and of credit, in Leicestershire, having lost a pillion-cloth, a very new one, went to desire his judgment. He ordered her such a day to attend at Mountsorrel in Leicestershire, and about twelve o'clock she should see her pillion-cloth upon a horse, and a woman upon it. My friend attended the hour and place; it being told, she must needs warm herself well, and then enquired if any passengers had lately gone by the inn? Unto whom answer was made, there passed by whilst she was at the fire, about half an hour before, a man, and a woman behind him, on horse-back. Inquiring of what colour the pillion-cloth was of; it was answered, directly of the colour my friend's was: they pursued, but too late.

In those times, there lived one William Marsh in Dunstable, a man of godly life and {122}upright conversation, a Recusant. By astrology he resolved thievish questions with great success; that was his utmost sole practice. He was many times in trouble; but by Dr. Napper's interest with the Earl of Bolingbroke, Lord Wentworth, after Earl of Cleveland, he still continued his practice, the said Earl not permitting any Justice of Peace to vex him.

This man had only two books, *Guido* and *Haly* bound together; he had so mumbled and tumbled the leaves of both, that half one side of every leaf was torn even to the middle. I was familiar with him for many years: he died about 1647.

A word or two of Dr. Napper, who lived at Great Lindford in Buckinghamshire, was parson, and had the advowson thereof. He descended of worshipful parents, and this you must believe; for when Dr. Napper's {123}brother, Sir Robert Napper, a Turkey merchant, was to be made a Baronet in King James's reign, there was some dispute whether he could prove himself a gentleman for three or more descents. 'By my saul,' saith King James, 'I will certify for Napper, that he is of above three hundred years standing in his family, all of them, by my saul, gentlemen,' &c. However, their family came into England in King Henry the Eighth's time. The parson was Master of Arts; but whether doctorated by degree or courtesy, because of his profession, I know not. Miscarrying one day in the pulpit, he never after used it, but all his life-time kept in his house some excellent scholar or other to officiate for him, with allowance of a good salary: he out-went Forman in physick and holiness of life; cured the falling-sickness {124}perfectly by constellated rings, some diseases by amulets, &c.

A maid was much afflicted with the falling sickness, whose parents applied themselves unto him for cure: he framed her a constellated ring, upon wearing whereof, she recovered perfectly. Her parents acquainted some scrupulous divines with the cure of their daughter: 'The cure is done by inchantment,' say they. 'Cast away the ring, it's diabolical; God cannot bless you, if you do not cast the ring away.' The ring was cast into the well, whereupon the maid became epileptical as formerly, and endured much misery for a long time. At last her parents cleansed the well, and recovered the ring again; the maid wore it, and her fits took her no more. In this condition she was one year or two; which the Puritan ministers {125}there adjoining hearing, never left off, till they procured her parents to cast the ring quite away; which done, the fits returned in such violence, that they were enforced to apply to the Doctor again, relating at large the whole story, humbly imploring his once more assistance; but he could not be procured to do any thing, only said, those who despised God's mercies, were not capable or worthy of enjoying them.

I was with him in 1632, or 1633, upon occasion. He had me up into his library, being excellently furnished with very choice books: there he prayed almost one hour; he invocated several angels in his prayer, viz.[12] Michael, Gabriel, Raphael, Uriel, &c. We parted.

Footnote 12:(return)

The collect read on Michaelmas-day, seems to allow of praying to angels. At some times, upon great occasions, he had conference with Michael, but very rarely.

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He instructed many ministers in astrology, would lend them whole cloak-bags of books; protected them from harm and violence, by means of his power with the Earl of Bolingbroke.[13] He would confess my master Evans knew more than himself in some things: and some time before he died, he got his cousin Sir Richard to set a figure to see when he should die. Being brought him; 'Well,' he said, 'the old man will live this winter, but in the spring he will die; welcome Lord Jesus, thy will be done.' He had many enemies: Cotta, Doctor of physick in Northampton, wrote a sharp book of witchcraft, wherein, obliquely, he bitterly inveighed against the Doctor.

Footnote 13:(return)

Lord Wentworth, after Earl of Cleveland.

In 1646, I printed a collection of Prophecies, with the explanation and verification of {127}Aquila, or the *White King's Prophecy*; as also the nativities of Bishop Laud and Thomas Earl of Strafford, and a most learned speech by him intended to have been spoke upon the scaffold. In this year 1646, after a great consideration, and many importunities, I began to fix upon thoughts of an *Introduction unto Astrology*, which was very much wanting, and as earnestly longed for by many persons of quality. Something also much occasioned and hastened the impression, viz. the malevolent

barking of Presbyterian ministers in their weekly sermons, reviling the professors thereof, and myself particularly by name.

Secondly, I thought it a duty incumbent upon me, to satisfy the whole kingdom of the lawfulness thereof, by framing a plain and easy method for any person but of indifferent capacity to learn the art, and instruct himself {128}therein, without any other master than my *Introduction*; by which means, when many understood it, I should have more partners and assistants to contradict all and every antagonist.

Thirdly, I found it best as unto point of time, because many of the soldiers were wholly for it, and many of the Independant party; and I had abundance of worthy men in the House of Commons, my assured friends, no lovers of Presbytery, which then were in great esteem, and able to protect the art; for should the Presbyterian party have prevailed, as they thought of nothing less than to be Lords of all, I knew well they would have silenced my pen annually, and committed the *Introduction* unto everlasting silence.

Fourthly, I had something of conscience touched my spirit, and much elevated my conceptions, believing God had not bestowed {129}those abilities upon me, to bury them under a bushel; for though my education was very mean, yet, by my continual industry, and God's great mercy, I found myself capable to go forward with the work, and to commit the issue thereof unto Divine Providence.

I had a hard task in hand to begin the first part hereof, and much labour I underwent to methodize it as it is.

I ingenuously confess unto you (Arts' great Mecænas, noble Esquire Ashmole,) no mortal man had any share in the composition or ordering of the first part thereof, but my only self. You are a person of great reading, yet I well know you never found the least trace thereof in any author yet extant.

In composing, contriving, ordering, and framing thereof (viz. the first part) a great part of that year was spent. I again perused all, or most, authors I had, sometimes adding, {130}at other times diminishing, until at last I thought it worthy of the press. When I came to frame the second part thereof, having formerly collected out of many manuscripts, and exchanged rules with the most able professors I had acquaintance with, in transcribing those papers for impression, I found, upon a strict inquisition, those rules were, for the most part, defective; so that once more I had now a difficult labour to correct their deficiency, to new rectify them according to art; and lastly, considering the multiplicity of daily questions propounded unto me, it was as hard a labour as might be to transcribe the papers themselves with my own hand. The desire I had to benefit posterity and my country, at last overcame all difficulties; so that what I could not do in one year, I perfected early the next year, 1647; and then in that year, viz. 1647, I {131}finished the third book of[14] nativities,[15] during the composing whereof, for seven whole weeks, I was shut up of the plague, burying in that time two maid-servants thereof; yet towards November that year, the Introduction, called by the name of *Christian Astrology*, was made publick. There being, in those times, some smart difference between the army and the Parliament, the head-quarters of the army were at Windsor, whither I was carried with a coach and four horses, and John Booker with me. We were welcome thither, and feasted in a garden where General Fairfax lodged. We were brought {132}to the General, who bid us kindly welcome to Windsor; and, in effect, said thus much:

Footnote 14:(return)

The name of the person whose nativity is directed and judged, is Mr. Thompson, whose father had been some time an inn-keeper at the White-Hart in Newark.

Footnote 15:(return)

I devised the forms and fashions of the several schemes. E.A.

'That God had blessed the army with many signal victories, and yet their work was not finished. He hoped God would go along with them until his work was done. They sought not themselves, but the welfare and tranquillity of the good people, and whole nation; and, for that end, were resolved to sacrifice both their lives and their own fortunes. As for the art we studied, he hoped it was lawful and agreeable to God's word: he understood it not; but doubted not but we both feared God; and therefore had a good opinion of us both.' Unto his speech I presently made this reply:

'My Lord, I am glad to see you here at this time.

'Certainly, both the people of God, and all others of this nation, are very sensible of {133}God's mercy, love, and favour unto them, in directing the Parliament to nominate and elect you General of their armies, a person so religious, so valiant.

'The several unexpected victories obtained under your Excellency's conduct, will eternize the same unto all posterity.

'We are confident of God's going along with you and your army, until the great work for which he ordained you both, is fully perfected; which we hope will be the conquering and subversion of your's and the Parliament's enemies, and then a quiet settlement and firm peace over all the nation, unto God's glory, and full satisfaction of tender consciences.

'Sir, as for ourselves, we trust in God; and, as Christians, believe in him. We do not study any art but what is lawful, and consonant to the scriptures, fathers, and antiquity; {134}which we humbly desire you to believe,' &c.

This ended, we departed, and went to visit Mr. Peters the minister, who lodged in the castle, whom we found reading an idle pamphlet come from London that morning.

zaid n. adwan

'Lilly, thou art herein,' says he. 'Are not you there also?' I replied. 'Yes, that I am,' quoth he.—The words concerning me were these:

From th' oracles of the Sibyls so silly,
The curst predictions of William Lilly,
And Dr. Sybbald's Shoe-lane Philly,
Good Lord, deliver me.

After much conference with Hugh Peters, and some private discourse betwixt us two, not to be divulged, we parted, and so came back to London.

King Charles the First, in the year 1646, {135}April 27, went unto the Scots, then in this nation. Many desired my judgment, in time of his absence, to discover the way he might be taken: which I would never be drawn unto, or give any direction concerning his person.

There were many lewd Mercuries printed both in London and Oxford, wherein I was sufficiently abused, in this year, 1646. I had then my ascendant *ad* [symbol: Gemini] [symbol: aspect "conjunction"], and [symbol: Moon] *ad propriun*. The Presbyterians were, in their pulpits, as merciless as the Cavaliers in their pamphlets.

About this time, the most famous mathematician of all Europe,[16] Mr. William Oughtred, parson of Aldbury in Surry, was in danger {136}of sequestration by the Committee of or for plundered ministers; (*Ambo-dexters* they were;) several inconsiderable articles were deposed and sworn against him, material enough to have sequestered him, but that, upon his day of hearing, I applied myself to Sir Bolstrode Whitlock, and all my own old friends, who in such numbers appeared in his behalf, that though the chairman and many other Presbyterian members were stiff against him, yet he was cleared by the major number. The truth is, he had a considerable parsonage, and that only was enough to sequester any moderate judgment: he was also well known to affect his Majesty. In

these times many worthy ministers lost their livings or benefices, for not complying with the *Three-penny Directory*. Had you seen (O noble Esquire) what pitiful ideots were prefered into sequestrated church-benefices, you {137}would have been grieved in your soul; but when they came before the classis of divines, could those simpletons but only say, they were converted by hearing such a sermon, such a lecture, of that godly man Hugh Peters, Stephen Marshall, or any of that gang, he was presently admitted.

Footnote 16:(return)

This gentleman I was very well acquainted with, having lived at the house over-against his, at Aldbury in Surrey, three or four years. E.A.

In 1647, I published the *World's Catastrophe*, the *Prophecies of Ambrose Merlin*, with the *Key* wherewith to unlock those obstruse Prophecies; also *Trithemius of the Government of the World by the presiding Angels*; these came forth all in one book.

The two first were exquisitely translated by yourself, (most learned Sir) as I do ingenuously acknowledge in my *Epistle unto the Reader*, with a true character of the worth and admirable parts, unto which I refer any that do desire to read you perfectly delineated. I was once resolved to have continued {138}*Trithemius* for some succeeding years, but multiplicity of employment impeded me. The study required, in that kind of learning, must be sedentary, of great reading, sound judgment, which no man can accomplish except he wholly retire, use prayer, and accompany himself with angelical consorts.

His Majesty Charles the First, having entrusted the Scots with his person, was, for money, delivered into the hands of the English Parliament, and, by several removals, was had to Hampton-Court, about July or August 1647; for he was there, and at that time when my house was visited with the plague. He was desirous to escape from the soldiery, and to obscure himself for some time near London, the citizens whereof began

now to be unruly, and alienated in affection from the Parliament, inclining wholly to his Majesty, and very averse to the army. His {139}Majesty was well informed of all this, and thought to make good use hereof; besides, the army and Parliament were at some odds, who should be masters. Upon the King's intention to escape, and with his consent, Madam Whorewood (whom you knew very well, worthy Esquire) came to receive my judgment, viz. In what quarter of this nation he might be most safe, and not to be discovered until himself pleased.

When she came to my door, I told her I would not let her come into my house for I buried a maid-servant of the plague very lately. 'I fear not the plague, but the pox,' quoth she; so up we went. After erection of my figure, I told her about twenty miles (or thereabouts) from London, and in Essex, I was certain he might continue undiscovered. She liked my judgment very well; and, being herself of a sharp judgment, remembered {140}a place in Essex about that distance, where was an excellent house, and all conveniences for his reception. Away she went, early next morning, unto Hampton-Court, to acquaint his Majesty; but see the misfortune: He, either guided by his own approaching hard fate, or misguided by Ashburnham,[17] went away in the night-time westward, and surrendered himself to Hammond, in the Isle of Wight.

Footnote 17:(return)

This Ashburnham was turned out of the House of Commons the 3d of November, 1667, for taking a bribe of five hundred pounds of the merchants. I was informed hereof 26th November, 1667.

Whilst his Majesty was at Hampton-Court Alderman Adams sent his Majesty one thousand pounds in gold, five hundred whereof he gave Madam Whorewood. I believe I had twenty pieces of that very gold for my share.

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I have something more to write of Charles the First's misfortunes, wherein I was concerned; the matter happened in 1648, but I thought good to insert it here, having after this no more occasion to mention him.

His Majesty being in Carisbrook-Castle in the Isle of Wight, the Kentish men, in great numbers, rose in arms, and joined with the Lord Goring; a considerable number of the best ships revolted from the Parliament; the citizens of London were forward to rise against the Parliament; his Majesty laid his design to escape out of prison, by sawing the iron bars of his chamber window; a small ship was provided, and anchored not far from the castle to bring him into Sussex; horses were provided ready to carry him through Sussex into Kent, so that he might be at the head of the army in Kent, and from thence to march immediately to London, where {142}thousands then would have armed for him. The Lady Whorewood came to me, acquaints me herewith. I got G. Farmer (who was a most ingenious lock-smith, and dwelt in Bowlane) to make a saw to cut the iron bars in sunder, I mean to saw them, and aqua fortis besides. His Majesty in a small time did his work; the bars gave liberty for him to go out; he was out with his body till he came to his breast; but then his heart failing, he proceeded no farther: when this was discovered, as soon after it was, he was narrowly looked after, and no opportunity after that could be devised to enlarge him. About September the Parliament sent their Commissioners with propositions unto him into the Isle of Wight, the Lord William Sea being one; the Lady Whorewood comes again unto me from him or by his consent, to be directed: After perusal of my figure, I told her the {143}Commissioners would be there such a day; I elected a day and hour when to receive the Commissioners and propositions; and as soon as the propositions were read, to sign them, and make haste with all speed to come up with the Commissioners to London. The army being then far distant from London, and the city enraged stoutly against them, he promised he would do so. That night the Commissioners came, and old Sea and his Majesty had private conference till one in the morning: the King acquaints Sea with his intention, who

clearly dissuaded him from signing the propositions, telling him they were not fit for him to sign; that he had many friends in the House of Lords, and some in the House of Commons; that he would procure more, and then they would frame more easy propositions. This flattery of this unfortunate Lord occasioned his Majesty to {144}wave the advice I and some others that wished his prosperity had given, in expectation of that which afterwards could never be gained. The army having some notice hereof from one of the Commissioners, who had an eye upon old Sea, hasted unto London, and made the citizens very quiet; and besides, the Parliament and army kept a better correspondency afterwards with each other.

Whilst the King was at Windsor-Castle, once walking upon the leads there, he looked upon Captain Wharton's *Almanack*: 'My book,' saith he, 'speaks well as to the weather:' One William Allen standing by; 'what,' saith he, 'saith his antagonist, Mr. Lilly?' 'I do not care for Lilly,' said his Majesty, 'he hath been always against me,' and became a little bitter in his expressions. 'Sir,' saith Allen, 'the man is an honest man, and writes but what his art informs {145}him.' 'I believe it,' said his Majesty, 'and that Lilly understands astrology as well as any man in Europe.' *Exit Rex Carolus.*

In 1648 I published a *Treatise of the Three Suns*, seen the winter preceding; as also an Astrological Judgment upon a Conjunction of Saturn and Mars 28 June, in 11 degrees 8 minutes of Gemini.

I commend unto your perusal that book and the *Prophetical Merlin*, which, seriously considered, (Oh worthy Esquire) will more instruct your judgement (*De generalibus contingentibus Mundi*) than all the authors you yet ever met with.

In this year, for very great considerations, the Council of State gave me in money fifty pounds, and a pension of one hundred pounds *per Annum*, which for two years I received, but no more: upon some discontents I after would not or did require it. The

cause moving {146}them was this; they could get no intelligence out of France, although they had several agents there for that purpose. I had formerly acquaintance with a secular priest, at this time confessor to one of the Secretaries; unto him I wrote, and by that means had perfect knowledge of the chiefest concernments of France, at which they admired; but I never yet, until this day, revealed the name of the person.

One occasion why I deserted that employment was, because Scott, who had eight hundred pounds *per Annum* for intelligence, would not contribute any occasion to gratify my friend: And another thing was, I received some affront from Gualter Frost their Secretary, one that was a principal minister belonging to the Council of State. Scott was ever my enemy, the other knave died of a gangrene in his arm suddenly after.

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In 1648 and 1649, that I might encourage young students in astrology, I publickly read over the first part of my *Introduction*, wherein there are many things contained, not easily to be understood.

And now we are entered into the year 1649: his Majesty being at St. James's House, in January of that year, I begun its observations thus:

'I am serious, I beg and expect justice; either fear or shame begins to question offenders.

'The lofty cedars begin to divine a thundering hurricane is at hand; God elevates men contemptible.

'Our demigods are sensible we begin to dislike their actions very much in London, more in the country.

zaid n. adwan

'Blessed be God, who encourages his servants, makes them valiant, and of undaunted {148}spirits, to go on with his decrees: upon a sudden, great expectations arise, and men generally believe a quiet and calm time draws nigh.'

In Christmas holidays, the Lord Gray of Grooby and Hugh Peters sent for me to Somerset-House, with directions to bring them two of my Almanacks.—I did so; Peters and he read January's Observations.

'If we are not fools and knaves,' saith he, 'we shall do justice:' then they whispered. I understood not their meaning till his Majesty was beheaded. They applied what I wrote of justice, to be understood of his Majesty, which was contrary to my intention; for Jupiter, the first day of January, became direct; and Libra is a sign signifying Justice; I implored for justice generally upon such as had cheated in their places, being treasurers, and such like officers. I had not then heard the {149}least intimation of bringing the King unto trial, and yet the first day thereof I was casually there, it being upon a Saturday; for going to Westminster every Saturday in the afternoon, in these times, at White-hall I casually met Peters; 'Come, Lilly, wilt thou go hear the King tried?' 'When?' said I. 'Now, just now; go with me.' I did so, and was permitted by the guard of soldiers to pass up to the King's-Bench. Within one quarter of an hour came the Judges, presently his Majesty, who spoke excellently well, and majestically, without impediment in the least when he spoke. I saw the silver top of his staff unexpectedly fall to the ground, which was took up by Mr. Rushworth: and then I heard Bradshaw the Judge say to his Majesty,

'Sir, instead of answering the court, you {150}interrogate their power, which becomes not one in your condition'—

These words pierced my heart and soul, to hear a subject thus audaciously to reprehend his Sovereign, who ever and anon replied with great magnanimity and prudence.

After that his Majesty was beheaded, the Parliament for some years effected nothing either for the publick peace or tranquillity of the nation, or settling religion as they had formerly promised. The interval of time betwixt his Majesty's death and Oliver Cromwel's displacing them, was wholly consumed in voting for themselves, and bringing their own relations to be members of Parliament, thinking to make a trade thereof.

The week, or three or four days before his Majesty's beheading, one Major Sydenham, who had commands in Scotland, came to {151}take his leave of me, and told me the King was to be put to death, which I was not willing to believe, and said, 'I could not be persuaded the Parliament could find any Englishman so barbarous, that would do that foul action.' 'Rather,' saith he, 'than they should want such a man, these arms of mine should do it.' He went presently after into Scotland, and upon the first engagement against them, was slain, and his body miserably cut and mangled.

In 1651 I published *Monarchy or no Monarchy*, and in the latter end thereof some hieroglyphics of my own, composed, at spare time, by the occult learning, many of those types having representations of what should from thence succeed in England, and have since had verification.

I had not that learning from books, or any manuscript I ever yet met withal, it is reduced {152}from a cabal lodging in astrology, but so mysterious and difficult to be attained, that I have not yet been acquainted with any who had that knowledge. I will say no more thereof, but that the asterisms and signs and constellations give greatest light thereunto.

During Bradshaw's being President of the Council of State, it was my happiness to procure Captain Wharton his liberty, which when Bradshaw understood, said, 'I will be an enemy to Lilly, if ever he come before me.' Sir Bolstrode Whitlock broke the ice first

of all on behalf of Captain Wharton: after him the Committee, unto whom his offence had been committed, spoke for him, and said he might well be bailed or enlarged: I had spoken to the Committee the morning of his delivery, who thereupon were so civil unto him, especially Sir William Ermin of Lincolnshire, who at first wondered I appeared not against {153}him; but upon my humble request, my long continued antagonist was enlarged and had his liberty.

In 1651 I purchased one hundred and ten pounds *per Annum* in fee-farm rents for one thousand and thirty pounds. I paid all in ready money; but when his Majesty King Charles the Second, 1660, was restored, I lost it all again, and it returned to the right owner; the loss thereof never afflicted me, for I have ever reduced my mind according to my fortune. I was drawn in by several persons to make that simple purchase. The year I bought it, I had my ascendant directed into a Trine of Jupiter first, and in the same year into the *Cauda Draconis*—my fortune into a quadrant of Mercury. When Colchester was besieged, John Booker and myself were sent for, where we encouraged the soldiers, assuring them the town would very shortly be surrendered, {154}as indeed it was: I would willingly have obtained leave to enter the town, to have informed Sir Charles Lucas, whom I well knew, with the condition of affairs as they then stood, he being deluded by false intelligence: at that time my scholar Humphreys was therein, who many times deluded the Governor with expectation of relief; but failing very many times with his lies, at last he had the bastinado, was put in prison, and inforced to become a soldier; and well it was he escaped so.—During my being there, the steeple of St. Mary's Church was much battered by two cannons purposely placed: I was there one day about three of the clock in the afternoon, talking with the cannoneer, when presently he desired us to look to ourselves, for he perceived by his perspective glass there was a piece charged in the castle against his work, and ready to be discharged. {155}I ran for haste under an old ash-tree, and immediately the cannon-bullet came hissing quite over us. 'No danger now,' saith the gunner, 'but begone, for

there are five more charging,' which was true; for two hours after those cannons were discharged, and unluckily killed our cannoneer and matross. I came the next morning and saw the blood of the two poor men lie upon the planks: we were well entertained at the head-quarters, and after two whole days abiding there, came for London.

But we prosecute our story again, and say that in the year 1652 I purchased my house and some lands in Hersham, in the parish of Walton upon Thames, in the county of Surrey, where I now live; intending by the blessing of God, when I found it convenient, to retire into the country, there to end my days in peace and tranquillity; for in {156}London my practice was such, I had none or very little time afforded me to serve God, who had been so gracious unto me. The purchase of the house and lands, and buildings, stood me in nine hundred and fifty pounds sterling, which I have very much augmented.

The Parliament now grows odious unto all good men, the members whereof became insufferable in their pride, covetousness, self-ends, laziness, minding nothing but how to enrich themselves. Much heart-burning now arose betwixt the Presbyterian and Independant, the latter siding with the army, betwixt whose two judgments there was no medium. Now came up, or first appeared, that monstrous people called Ranters: and many other novel opinions, in themselves heretical and scandalous, were countenanced by members of Parliament, many whereof {157}were of the same judgment. Justice was neglected, vice countenanced, and all care of the common good laid aside. Every judgment almost groaned under the heavy burthen they then suffered; the army neglected; the city of London scorned; the ministry, especially those who were orthodox and serious, honest or virtuous, had no countenance; my soul began to loath the very name of a Parliament, or Parliament-men. There yet remained in the House very able, judicious, and worthy patriots; but they, by their silence, only served themselves: all

was carried on by a rabble of dunces, who being the greater number, voted what seemed best to their non-intelligent fancies.

In this year I published *Annas Tenebrosus*, which book I did not so entitle, because of the great obscurity of the solar eclipse, by so many prattled of to no purpose, but because {158}of those underhand and clandestine counsels held in England by the soldiery, of which I would never, but in generals, give any knowledge unto any Parliament man. I had wrote publickly in 1650, that the Parliament should not continue, but a new government should arise, &c.

In my next year's *Anglicus*, upon rational grounds in astrology, I was so bold as to aver therein, that the Parliament stood upon a tottering foundation, and that the commonalty and soldiery would join together against them.

My *Anglicus* was for a whole week every day in the Parliament House, peeped into by the Presbyterians, one disliking this sentence, another finds another fault, others misliked the whole; so in the end a motion was made, that *Anglicus* should be inspected by the Committee for plundered ministers; {159}which being done, they were to return them to the House, viz. report its errors.

A messenger attached me by a warrant from that Committee; I had private notice ere the messenger came, and hasted unto Mr. Speaker Lenthall, ever my friend. He was exceeding glad to see me, told me what was done; called for *Anglicus*, marked the passages which tormented the Presbyterians so highly. I presently sent for Mr. Warren the printer, an assured Cavalier, obliterated what was most offensive, put in other more significant words, and desired only to have six amended against next morning, which very honestly he brought me. I told him my design was to deny the book found fault with, to own only the six books. I told him, I doubted he would be examined. 'Hang

them,' said he, 'they are all rogues. I'll {160}swear myself to the devil ere they shall have an advantage against you by my oath.'

The day after, I appeared before the Committee, being thirty-six in number that day; whereas it was observed, at other times, it was very difficult to get five of them together. At first they shewed me the true *Anglicus*, and asked if I wrote and printed it. I took the book and inspected it very heedfully; and when I had done so, said thus:

'This is none of my book, some malicious Presbyterian hath wrote it, who are my mortal enemies; I disown it.' The Committee looked upon one another like distracted men, not imagining what I presently did; for I presently pulled out of my pocket six books, and said, 'These I own, the others are counterfeits, published purposely to ruin me.' The Committee were now more vexed than {161}before: not one word was spoke a good while; at last, many of them, or the greatest number of them, were of opinion to imprison me. Some were for Newgate, others for the Gate-House; but then one Brown of Sussex, called the Presbyterian beadle, whom the Company of Stationers had bribed to be my friend, by giving him a new *Book of Martyrs*; he, I say, preached unto the Committee this doctrine, that neither Newgate or the Gate-House were prisons unto which at any time the Parliament sent their prisoners: it was most convenient for the Serjeant at Arms to take me in custody.

Mr. Strickland, who had for many years been the Parliament's Ambassador or Agent in Holland, when he saw how they inclined, spoke thus:

'I came purposely into the Committee this day to see the man who is so famous in {162}those parts where I have so long continued: I assure you his name is famous all over Europe: I come to do him justice. A book is produced by us, and said to be his; he denies it; we have not proved it, yet will commit him. Truly this is great injustice. It is

likely he will write next year, and acquaint the whole world with our injustice; and so well he may. It is my opinion, first to prove the book to be his, ere he be committed.'

Another old friend of mine, Mr. R. spoke thus:

'You do not know the many services this man hath done for the Parliament these many years, or how many times, in our greatest distresses, we applying unto him, he hath refreshed our languishing expectations; he never failed us of comfort in our most unhappy distresses. I assure you his writings {163}have kept up the spirits both of the soldiery, the honest people of this nation, and many of us Parliament men; and now at last, for a slip of his pen (if it were his) to be thus violent against him: I must tell you, I fear the consequence urged out of the book will prove effectually true. It is my counsel, to admonish him hereafter to be more wary, and for the present to dismiss him.'

Notwithstanding any thing that was spoken on my behalf, I was ordered to stand committed to the Serjeant at Arms. The messenger attached my person, said I was his prisoner. As he was carrying me away, he was called to bring me again. Oliver Cromwell, Lieutenant-General of the army, having never seen me, caused me to be produced again, where he stedfastly beheld me for a good space, and then I went with the messenger; but instantly a young clerk of that {164}Committee asks the messenger what he did with me, where's the warrant? until that is signed you cannot seize Mr. Lilly, or shall. Will you have an action of false imprisonment against you? So I escaped that night, but next day obeyed the warrant. That night Oliver Cromwell went to Mr. R. my friend, and said, 'What never a man to take Lilly's cause in hand but yourself? None to take his part but you? He shall not be long there.' Hugh Peters spoke much in my behalf to the Committee; but they were resolved to lodge me in the Serjeant's custody. One Millington, a drunken member, was much my enemy; and so was Cawley and Chichester, a deformed fellow, unto whom I had done several courtesies.

First thirteen days I was a prisoner; and though every day of the Committee's sitting I had a petition to deliver, yet so many {165}churlish Presbyterians still appeared, I could not get it accepted. The last day of the thirteen, Mr. Joseph Ash was made Chairman, unto whom my cause being related, he took my petition, and said I should be bailed in despite of them all, but desired I would procure as many friends as I could to be there. Sir Arthur Hazelrigg, and Major Salloway, a person of excellent parts, appeared for me, and many now of my old friends came in. After two whole hours arguing of my cause by Sir Arthur and Major Salloway, and other friends, the matter came to this point; I should be bailed, and a Committee nominated to examine the printer. The order of the Committee being brought afterwards to him who should be Chairman, he sent me word, do what I would, he would see all the knaves hanged, ere he would examine the printer. This is the truth of the story.

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The 16th of February 1655, my second wife died; for whose death I shed no tears. I had five hundred pounds with her as a portion, but she and her poor relations spent me one thousand pounds. *Gloria Patri, & Filio, & Spiritui Sancto: sicut erat in principio & nunc, & semper, & in sæcula sæculorum*: for the 20th of April 1655, these enemies of mine, viz. Parliament men, were turned out of doors by Oliver Cromwell. A German doctor of physick being then in London, sent me this paper:

Strophe Alcaica: Generoso Domino Gulielmo Lillio Astrologo, de dissoluto nuper Parliamento.

Quod calculasti Sydere prævio,
Miles peregit numine conscio;
Gentis videmus nunc Senatum
Marte togaque gravi levatum.

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In the time of my imprisonment, Mr. Rushworth came to visit me, and told me, the army would do as much as I had predicted unto the Parliament.

In October 1654, I married the third wife, who is signified in my nativity by *Jupiter in Libra*; and she is so totally in her conditions, to my great comfort.

In 1655, I was indicted at Hicks's-Hall by a half-witted young woman. Three several sessions she was neglected, and the Jury cast forth her bill; but the fourth time, they found it against me: I put in bail to traverse the indictment. The cause of the indictment was, for that I had given judgment upon stolen goods, and received two shillings and six-pence.—And this was said to be contrary unto an Act in King James's time made.

This mad woman was put upon this action against me by two ministers, who had framed {168}for her a very ingenious speech, which she could speak without book, as she did the day of hearing the traverse. She produced one woman, who told the court, a son of her's was run from her; that being in much affliction of mind for her loss, she repaired unto me to know what was become of him; that I told her he was gone for the Barbadoes, and she would hear of him within thirteen days; which, she said, she did.

A second woman made oath, that her husband being wanting two years, she repaired to me for advice: that I told her he was in Ireland, and would be at home such a time; and, said she, he did come home accordingly.

I owned the taking of half a crown for my judgment of the theft; but said, I gave no other judgment, but that the goods would not be recovered, being that was all which was required of me: the party, before that, {169}having been with several astrologers, some affirming she should have her goods again, others gave contrary judgment, which made her come unto me for a final resolution.

At last my enemy began her before-made speech, and, without the least stumbling, pronounced it before the court; which ended, she had some queries put unto her, and then I spoke for myself, and produced my own *Introduction* into court, saying, that I had some years before emitted that book for the benefit of this and other nations; that it was allowed by authority, and had found good acceptance in both universities; that the study of astrology was lawful, and not contradicted by any scripture; that I neither had, or ever did, use any charms, sorceries, or inchantments related in the bill of indictment, &c.

She then related, that she had been several {170}times with me, and that afterwards she could not rest a-nights, but was troubled with bears, lions, and tygers, &c. My counsel was the Recorder Green, who after he had answered all objections, concluded astrology was a lawful art.

'Mistress,' said he, 'what colour was those beasts that you were so terrified with?'

'I never saw any,' said she.

'How do you then know they were lions, tygers, or bears?' replied he.—'This is an idle person, only fit for Bedlam.' The Jury who went not from the bar, brought in, No true Bill.

There were many Presbyterian Justices much for her, and especially one Roberts, a busy fellow for the Parliament, who after his Majesty came in, had like to have lost life and fortune.

I had procured Justice Hooker to be there, {171}who was the oracle of all the Justices of Peace in Middlesex.

zaid n. adwan

There was nothing memorable after that happened unto me, until 1650, and the month of October, at what time Captain Owen Cox brought me over from his Majesty of Sweden, a gold chain and medal, worth about fifty pounds; the cause whereof was, that in the year 1657 and 1658, I had made honourable mention of him: the *Anglicus* of 1658 being translated into the language spoke at Hamburgh, printed and cried about the streets, as it is in London.

The occasion of my writing so honourably of his Majesty of Sweden was this: Sir Bolstrode Whitlock, Knight, upon the very time of Oliver's being made Protector, having made very noble articles betwixt Christina then Queen of Sweden, and the English nation, was in his being at Stockholm visited {172}frequently by Charles Gustavus, unto whom Christina resigned during his abode, and used with all manner of civility by him, insomuch as some other Ambassadors took it ill, that they had not so much respect or equal: unto which he would reply, he would be kind where himself did find just cause of merit unto any. He were a great lover of our nation; but there were some other causes also moving my pen to be so liberal, viz. The great hopes I had of his prevailing, and of taking Copenhagen and Elsinore, which, if he had lived, was hoped he might have accomplished; and had assuredly done, if Oliver the Protector had not so untimely died ere our fleet of ships returned; for Oliver sent the fleet on purpose to fight the Dutch; but dying, and the Parliament being restored, Sir Henry Vane, who afterwards was beheaded, had order from the Council of State to {173}give order to the fleet what to do now Oliver was dead, and themselves restored. Vane, out of state-policy, gave the Earl of Sandwich direction not to fight the Dutch. Captain Symons, who carried those letters, swore unto me, had he known the letters he carried had contained any such prohibition, he would have sunk both ship and letters. Oliver said, when the fleet was to go forth, 'That if God blessed his Majesty of Sweden with Copenhagen, the English were to have Elsinore as their share; which if once I have,' saith Oliver, 'the English shall have the whole trade of the Baltick Sea: I will make the

Dutch find another passage, except they will pay such customs as I shall impose.' Considering the advantages this would have been to our English, who can blame my pen for being liberal, thereby to have encouraged our famous and noble seamen, or for writing {174}so honourably of the Swedish nation, who had most courteously treated my best of friends, Sir Bolstrode Whitlock, and by whose means, had the design taken effect, the English nation had been made happy with the most beneficial concern of all Christendom. I shall conclude about Oliver the then Protector, with whom obliquely I had transactions by his son-in-law, Mr. Cleypool; and to speak truly of him, he sent one that waited upon him in his chamber, once in two or three days, to hear how it fared with me in my sessions business; but I never had of him, directly or indirectly, either pension, or any the least sum of money, or any gratuity during his whole Protectorship; this I protest to be true, by the name and in the name of the most holy God.

In 1653, before the dissolution of the Parliament, and that ere they had chosen any for {175}their Ambassador into Sweden, Mr. Cleypool came unto me, demanding of me whom I thought fittest to send upon that embassy into Sweden: I nominated Sir B. Whitlock, who was chosen, and two or three days after Mr. Cleypool came again: 'I hope, Mr. Lilly, my father hath now pleased you: Your friend Sir B. Whitlock is to go for Sweden.' But since I have mentioned Oliver Cromwell, I will relate something of him, which perhaps no other pen can, or will mention. He was born of generous parents in Huntingdonshire, educated some time at the university of Cambridge: in his youth was wholly given to debauchery, quarrelling, drinking, &c. *quid non*; having by those means wasted his patrimony, he was enforced to bethink himself of leaving England, and go to New-England: he had hired a passage in a ship, but ere she launched {176}out for her voyage, a kinsman dieth, leaving him a considerable fortune; upon which he returns, pays his debts, became affected to religion; is elected in 1640 a member of Parliament, in 1642 made a Captain of horse under Sir Philip Stapleton, fought at Edge-Hill; after he was made a Colonel, then Lieutenant-General to the Earl of Manchester,

who was one of the three Generals to fight the Earl of Newcastle and Prince Rupert at York: Ferdinando Lord Fairfax, and Earl Leven the Scot, were the other two for the Parliament: the last two thinking all had been lost at Marston-Moor fight, Fairfax went into Cawood Castle, giving all for lost: at twelve at night there came word of the Parliament's victory; Fairfax being then laid down upon a bed, there was not a candle in the castle, nor any fire: up riseth Lord Fairfax, {177}procures after some time, paper, ink, and candle, writes to Hull, and other garrisons of the Parliament's, of the success, and then slept.

Leven the Scot asked the way to Tweed: the honour of that day's fight was given to Manchester, Sir Thomas Fairfax's brigade of horse, and Oliver Cromwell's iron sides; for Cromwell's horse, in those times, usually wore head-pieces, back and breast-plates of iron. After this victory Cromwell became gracious with the House of Commons, especially the Zealots, or Presbyterians, with whom at that time he especially joined; the name Independent, at that time, viz. 1644, being not so much spoken of.

There was some animosity at or before the fight, betwixt the Earl of Newcastle and Prince Rupert; for Newcastle being General of his Majesty's forces in the North, a person {178}of valour, and well esteemed in those parts, took it not well to have a competitor in his concernments; for if the victory should fall on his Majesty's side, Prince Rupert's forces would attribute it unto their own General, viz. Rupert, and give him the glory thereof: but that it happened, Prince Rupert, in that day's fight, engaged the Parliament's forces too soon, and before the Earl of Newcastle could well come out of York with his army; by reason whereof, though Rupert had absolutely routed the Scots and the Lord Fairfax's forces; yet ere timely assistance could second his army, Sir Thomas Fairfax and Cromwell had put him to flight, and not long after all Newcastle's army. A most memorable action happened on that day. There was one entire regiment of foot belonging to Newcastle, called the Lambs, because they were all new cloathed

in white woollen cloth, two or three days before the fight. This sole regiment, {179}after the day was lost, having got into a small parcel of ground ditched in, and not of easy access of horse, would take no quarter; and by mere valour, for one whole hour, kept the troops of horse from entering amongst them at near push of pike: when the horse did enter, they would have no quarter, but fought it out till there was not thirty of them living; those whose hap it was to be beaten down upon the ground as the troopers came near them, though they could not rise for their wounds, yet were so desperate as to get either a pike or sword, or piece of them, and to gore the troopers' horses as they came over them, or passed by them. Captain Camby, then a trooper under Cromwell, and an actor, who was the third or fourth man that entered amongst them, protested, he never in all the fights he was in, met with such resolute brave fellows, or whom he {180}pitied so much, and said, 'he saved two or three against their wills.'

After the fight, Manchester marched slowly southward, &c. but at last came with his army to Newbury fight; which ended, he came for London, and there he accuseth Cromwell, being his Lieutenant, to the Parliament, of disobedience, and not obeying his orders.

The House of Commons acquaint Cromwell herewith, and charge him, as he would answer it before God, that the day following he should give them a full account of Manchester's proceedings, and the cause and occasion of their difference, and of the reasons why Manchester did not timely move westward for the relief of Essex, then in the west, who was absolutely routed, inforced to fly, all his foot taken, and all his ordnance and train of artillery, only the horse escaping. {181}Cromwell the next day gave this account to Mr. Speaker in the House of Commons—by way of recrimination.

That after God had given them a successful victory at Marston over the King's forces, and that they had well refreshed their army, Manchester, by their order, did move southward, but with such slowness, that sometimes he would not march for three days

together; sometimes he would lie still one day, then two days; whereupon he said, considering the Earl of Essex was in the west, with what success he then knew not, he moved Manchester several times to quicken his march to the west, for relief of Essex, if he were beaten, or to divert the King's forces from following of Essex; but he said Manchester still refused to make any haste; and that one day he said, 'If any man but yourself, Lieutenant, should so frequently trouble me, I would call {182}him before a Council of War. We have beaten the King's forces in the north; if we should do so in the west, his Majesty is then undone: he hath many sons living; if any of them come to the Crown, as they well may, they will never forget us.' This Major Hammond, a man of honour, will justify as well as myself. After which he marched not at all, until he had order from the Committee to hasten westward, by reason of Essex's being lost in Cornwall, which then he did; and at Newbury fight, it is true, I refused to obey his directions and order: for this it was; his Majesty's horse being betwixt four and five thousand in a large common, in good order, he commands me, Mr. Speaker, to charge them; we having no way to come at them but through a narrow lane, where not above three horse could march abreast; whereby had I followed his order, we had been all cut {183}off ere we could have got into any order. Mr. Speaker, (and then he wept; which he could do *toties quoties*) I, considering that all the visible army you then had, was by this counsel in danger to be lost, refused thus to endanger the main strength, which now most of all consisted of those horse under my command, &c.—This his recrimination was well accepted by the House of Commons, who thereupon, and from that time, thought there was none of the House of Lords very fit to be entrusted with their future armies, but had then thoughts of making a commoner their General; which afterwards they did, and elected Sir Thomas Fairfax their General, and Cromwell Lieutenant-General; but it was next spring first. Upon Essex's being lost in Cornwall, I heard Serjeant Maynard say, 'If now the King haste to London we are undone, having no army to resist him.'

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His Majesty had many misfortunes ever attending him, during his abode at Oxford; some by reason of that great animosity betwixt Prince Rupert and the Lord Digby, each endeavouring to cross one another; but the worst of all was by treachery of several officers under his command, and in his service; for the Parliament had in continual pay one Colonel of the King's Council of War; one Lieutenant-Colonel; one Captain; one Ensign; one or two Serjeants; several Corporals, who had constant pay, and duly paid them every month, according to the capacity of their officers and places, and yet none of these knew any thing of each other's being so employed. There were several well-wishers unto the Parliament in Oxford, where each left his letter, putting it in at the hole of a glass-window, as he made water in the street. What was put in at the window in any of {185}those houses, was the same day conveyed two miles off by some in the habit of town-gardeners, to the side of a ditch, where one or more were ever ready to give the intelligence to the next Parliament garrison: I was then familiar with all the spies that constantly went in and out to Oxford.

But once more to my own actions. I had, in 1652 and 1653 and 1654, much contention with Mr. Gatacre of Rotherhithe, a man endued with all kind of learning, and the ablest man of the whole synod of divines in the Oriental tongues.

The synod had concluded to make an exposition upon the bible; some undertook one book, some another. Gatacre fell upon *Jeremy*. Upon making his exposition on the 2d verse of the 10th chapter,

'Learn not the way of the heathen, and {186}be not dismayed at the signs of heaven, for the heathen are dismayed at them.'

zain. adwan

In his *Annotations* thereupon, he makes a scandalous exposition; and in express terms, hints at me, repeating *verbatim*, ten or twelve times, an *Epistle* of mine in one of my former *Anglicus*.

The substance of my *Epistle* was, that I did conceive the good angels of God did first reveal astrology unto mankind, &c. but he in his *Annotations* calls me blind buzzard, &c.

Having now liberty of the press, and hearing the old man was very cholerick, I thought fit to raise it up—and only wrote—I referred my discourse then in hand to the discussion and judgment of sober persons, but not unto Thomas Wiseacre, for *Senes bis pueri*: These very words begot the writing of forty-two sheets against myself and astrology. The {187}next year I quibbled again in three or four lines against him, then he printed twenty-two sheets against me. I was persuaded by Dr. Gauden, late Bishop of Exeter, to let him alone; but in my next year's *Anglicus*, in August observations, I wrote, *Hâc in tumbâ jacet Presbyter & Nebulo*, in which very month he died.

Several divines applied themselves unto me, desiring me to forbear any further vexing of Mr. Gatacre; but all of them did as much condemn him of indiscretion, that in so sober a piece of work as that was, viz. in an *Annotation* upon a sacred text of scripture to particularize me and in that dirty language: they pitied him, that he had not better considered with himself ere he published it.

Dean Owen of Christ's-Church in Oxford, also in his sermons had sharp invectives {188}against me and astrology; I cried quittance with him, by urging Abbot Panormitan's judgment of astrology contrary to Owen's, and concluded, 'An Abbot was an ace above a Dean.'

One Mr. Nye of the assembly of divines, a Jesuitical Presbyterian, bleated forth his judgment publickly against me and astrology: to be quit with him, I urged Causinus the Jesuit's approbation of astrology, and concluded, *Sic canibus catulos, &c*.

In some time after the Dutch Ambassador being offended with some things in *Anglicus*, presented a memorial to the Council of State, that *Merlinus Anglicus* might be considered, and the abuses against their nation examined; but his paper was not accepted of, or I any way molested.

In Oliver's Protectorship, I wrote freely and satyrical enough: he was now become {189}Independant, and all the soldiery my friends; for when he was in Scotland, the day of one of their fights, a soldier stood with *Anglicus* in his hand; and as the several troops passed by him, 'Lo, hear what Lilly saith; you are in this month promised victory, fight it out, brave boys;' and then read that month's prediction.

I had long before predicted the downfall of Presbytery, as you (most honoured Sir) in the figure thereof, in my *Introduction*, may observe; and it was upon this occasion. Sir Thomas Middleton of Chark Castle, enemy to Presbytery, seeing they much prevailed, being a member of the House, seriously demanded my judgment, if Presbytery should prevail, or not, in England? The figure printed in my *Introduction*, will best give you an account, long before it happened, of the sinking and failing of Presbytery; so {190}will the second page of my *Hieroglyphicks*. Those men, to be serious, would preach well; but they were more lordly than Bishops, and usually, in their parishes, more tyrannical than the Great Turk.

OF THE YEAR 1660; THE ACTIONS WHEREOF, AS THEY WERE REMARKABLE IN ENGLAND, SO WERE THEY NO LESS MEMORABLE AS TO MY PARTICULAR FORTUNE AND PERSON.

Upon the Lord General Monk's returning from Scotland with his army into England, suddenly after his coming to London, Richard Cromwell, the then Protector's, authority was laid aside, and the old Parliament restored; the Council of State sat as formerly. The first act they put the General upon was, to {191}take down the city gates and portcullisses, an act which, the General said, was fitter for a Janizary to do than for a General; yet he effected the commands received, and then lodged in the city with his army. The citizens took this pulling down of their gates so heinously, that one night the ruder sort of them procured all the rumps of beef, and other baggage, and publickly burnt them in the streets, in derision of the then Parliament, calling them that now sat, The Rump. This hurly-burly was managed as well by the General's soldiers as the citizens. The King's health was publickly drank all over the city, to the confusion of the Parliament. The matter continued until midnight, or longer. The Council of State, sitting at White-Hall, had hereof no knowledge, until Sir Martin Noell, a discreet citizen, came about nine at night, and then first informed them thereof. {192}The Council could not believe it, until they had sent some ministers of their own, who affirmed the verity thereof. They were at a stand, and could not resolve what to do; at last Nevil Smith came, being one of them, and publickly protested there was but one way to regain their authority, and to be revenged of this affront, and to overthrow the Lord General Monk, whom they now perceived intended otherways than he had pretended; his council was, to take away Monk's commission, and to give a present commission to Major-General Lambert to be their General; which counsel of his, if they would take and put it speedily in execution, would put an end unto all the present mischiefs. The Council in general did all very well approve Nevil Smith's judgment; but presently up starts Sir Arthur Hazellrigg, and makes a sharp invective against Lambert, and concluded, {193}he would rather perish under the King of Scot's power, than that Lambert should ever any more have command under the Parliament.

The Lord General suddenly after brings in the long excluded Members to sit in Parliament, being persons of great judgment, and formerly enforced from sitting therein by the soldiery, and connivance of those who stiled themselves the godly part of the Parliament. These honourable patriots presently voted his Majesty's coming into England, and so he did in May 1660. But because Charles the Second, now (1667) King of England, Son of Charles the First, grandchild to James the First, King of Great Britany, was so miraculously restored, and so many hundreds of years since prophesied of by Ambrose Merlin, it will not be impertinent to mention the prophecies {194}themselves, the rather because we have seen their verification.

AMBROSE MERLIN'S PROPHECY WROTE ABOUT 990 YEARS SINCE.

He calls King James, The Lion of Righteousness; and saith, when he died, or was dead, there would reign a noble White King; this was Charles the First. The prophet discovers all his troubles, his flying up and down, his imprisonment, his death; and calls him Aquila. What concerns Charles the Second, is the subject of our discourse: in the Latin copy it is thus:

Deinde ab Austro veniet cum Sole super ligneos equos, & super spumantem inundationem maris, Pullus Aquilæ navigans in Britanniam.

Et applicans statim tunc altam domum Aquilæ sitiens, & cito aliam sitiet.

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Deinde Pullus Aquilæ nidificabit in summa rupe totius Britanniæ: nec juvenis occidet, nec ad senem vivet.

This, in an old copy, is Englished thus:

'After then, shall come through the south with the sun, on horse of tree, and upon all waves of the sea, the Chicken of the Eagle, sailing into Britain, and arriving anon to the house of the Eagle, he shall shew fellowship to them beasts.

'After, the Chicken of the Eagle shall nestle in the highest rock of all Britain: nay, he shall nought be slain young; nay, he nought come old.'

Another Latin copy renders the last verse thus:

Deindè pullus Aquilæ nidificabit in summo rupium, nec juvenis occidetur, nec ad senium perveniet. There is after this, *percificato regno omnes occidet*; which is intended of those persons {196}put to death, that sat as Judges upon his father's death.

THE VERIFICATION.

His Majesty being in the Low-Countries when the Lord General had restored the secluded Members, the Parliament sent part of the Royal Navy to bring him for England, which they did in May 1660. Holland is East from England, so he came with the sun; but he landed at Dover, a port in the south part of England. Wooden-horses, are the English ships.

Tunc nidificabit in summo rupium.

The Lord General, and most of the gentry in England, met him in Kent, and brought him unto London, then to White-hall.

Here, by the highest Rooch, (some write Rock,) is intended London, being the metropolis of all England.

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Since which time, unto this very day I write this story, he hath reigned in England, and long may he do hereafter. 10th December, 1667.

Had I leisure, I might verify the whole preceding part concerning King Charles. Much of the verification thereof is mentioned in my *Collection of Prophecies*, printed 1645. But his Majesty being then alive, I forbore much of that subject, not willing to give offence. I dedicated that book unto him; and, in the conclusion thereof, I advised his return unto Parliament, with these words, *Fac hoc & vives*.

There was also a *Prophecy* printed 1588, in Greek characters, exactly decyphering the long troubles the English nation had from 1641 until 1660; and then it ended thus:

'And after that shall come a dreadful dead {198}man, and with him a Royal G.' [it is Gamma in the Greek, intending C. in the Latin, being the third letter in the alphabet,] 'of the best blood in the world, and he shall have the Crown, and shall set England on the right way, and put out all heresies.'

Monkery being extinguished above eighty or ninety years, and the Lord General's name being Monk, is the Dead Man. The Royal G. or C. is Charles the Second, who, for his extraction, may be said to be of the best blood in the world.

These two prophecies were not given vocally by the angels, but by inspection of the crystal in types and figures, or by apparition the circular way, where, at some distance, the angels appear, representing by forms, shapes, and creatures, what is demanded. It is very rare, yea, even in our days, for any operator {199}or master to have the angels speak articulately; when they do speak, it is like the Irish, much in the throat.

What further concerns his Majesty, will more fully be evident about 1672 or 1674, or, at farthest, in 1676. And now unto my own actions in 1660.

In the first place, my fee-farm rents, being of the yearly value of one hundred and twenty pounds, were all lost by his Majesty's coming to his restoration: but I do say truly, the loss thereof did never trouble me, or did I repine thereat.

In June of that year, a new Parliament was called, whereunto I was unwillingly invited by two messengers of the Serjeant at Arms. The matter whereupon I was taken into custody was, to examine me concerning the person who cut off the King's head, viz. the late King's.

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Sir Daniel Harvey, of Surry, got the business moved against me in great displeasure, because, at the election of new knights for Surrey, I procured the whole town of Walton to stand, and give their voices for Sir Richard Onslow. The Committee to examine me, were Mr. Prinn, one Colonel King, and Mr. Richard Weston of Gray's-Inn.

God's providence appeared very much for me that day, for walking in Westminster-Hall, Mr. Richard Pennington, son to my old friend Mr. William Pennington, met me, and enquiring the cause of my being there, said no more, but walked up and down the hall, and related my kindness to his father unto very many Parliament men of Cheshire and Lancashire, Yorkshire, Cumberland, and those northern countries, who numerously came up into the Speaker's chamber, and bade me be of good comfort: at last he {201}meets Mr. Weston, one of the three unto whom my matter was referred for examination, who told Mr. Pennington, that he came purposely to punish me; and would be bitter against me; but hearing it related, viz. my singular kindness and preservation of old Mr. Pennington's estate to the value of six or seven thousand pounds, 'I will do him all the good I can,' says he. 'I thought he had never done any good; let me see him, and let him stand behind me where I sit:' I did so. At my first appearance, many of the young members affronted me highly, and demanded several scurrilous questions. Mr.

Weston held a paper before his mouth; bade me answer nobody but Mr. Prinn; I obeyed his command, and saved myself much trouble thereby; and when Mr. Prinn put any difficult or doubtful query unto me, Mr. Weston prompted me with a fit answer. At last, {202}after almost one hour's tugging, I desired to be fully heard what I could say as to the person who cut Charles the First's head off. Liberty being given me to speak, I related what follows, viz.

That the next Sunday but one after Charles the First was beheaded, Robert Spavin, Secretary unto Lieutenant-General Cromwell at that time, invited himself to dine with me, and brought Anthony Peirson, and several others, along with him to dinner: that their principal discourse all dinner-time was only, who it was that beheaded the King; one said it was the common hangman; another, Hugh Peters; others also were nominated, but none concluded. Robert Spavin, so soon as dinner was done, took me by the hand, and carried me to the south window: saith he, 'These are all mistaken, they have not named the man that did the fact: it was Lieutenant-Colonel {203}**Joice**; I was in the room when he fitted himself for the work, stood behind him when he did it; when done, went in again with him: there is no man knows this but my master, viz. Cromwell, Commissary Ireton, and myself.' 'Doth not Mr. Rushworth know it?' said I. 'No, he doth not know it,' saith Spavin. The same thing Spavin since had often related unto me when we were alone. Mr. Prinn did, with much civility, make a report hereof in the House; yet Norfolk the Serjeant, after my discharge, kept me two days longer in arrest, purposely to get money of me. He had six pounds, and his Messenger forty shillings; and yet I was attached but upon Sunday, examined on Tuesday, and then discharged, though the covetous Serjeant detained me until Thursday. By means of a friend, I cried quittance with Norfolk, which friend was to pay him {204}his salary at that time, and abated Norfolk three pounds, which we spent every penny at one dinner, without inviting the wretched Serjeant: but in the latter end of the year, when the King's Judges were arraigned at the Old-Bailey, Norfolk warned me to attend, believing I could give

information concerning Hugh Peters. At the sessions I attended during its continuance, but was never called or examined. There I heard Harrison, Scott, Clement, Peters, Hacker, Scroop, and others of the King's Judges, and Cook the Sollicitor, who excellently defended himself; I say, I did hear what they could say for themselves, and after heard the sentence of condemnation pronounced against them by the incomparably modest and learned Judge Bridgman, now Lord Keeper of the Great Seal of England.

One would think my troubles for that year {205}had been ended; but in January 1662, one Everard, a Justice of Peace in Westminster, ere I was stirring, sent a Serjeant and thirty four musqueteers for me to White-Hall: he had twice that night seized about sixty persons, supposed fanaticks, very despicable persons, many whereof were aged, some were water-bearers, and had been Parliament-soldiers; others, of ordinary callings: all these were guarded unto White-Hall, into a large room, until day-light, and then committed to the Gate-House; I was had into the guard-room, which I thought to be hell; some therein were sleeping, others swearing, others smoaking tobacco. In the chimney of the room I believe there was two bushels of broken tobacco-pipes, almost half one load of ashes. Everard, about nine in the morning, comes, writes my mittimus for the Gate-House, then shews it me: I must be {206}contented. I desired no other courtesy, but that I might be privately carried unto the Gate-House by two soldiers; that was denied. Among the miserable crew of people, with a whole company of soldiers, I marched to prison, and there for three hours was in the open air upon the ground, where the common house of office came down. After three hours, I was advanced from this stinking place up the stairs, where there was on one side a company of rude swearing persons; on the other side many Quakers, who lovingly entertained me. As soon as I was fixed, I wrote to my old friend Sir Edward Walker, Garter King at Arms, who presently went to Mr. Secretary Nicholas, and acquainted him with my condition. He ordered Sir Edward to write to Everard to release me, unless he had any particular information against me, which he had not. He further said, it was {207}not his Majesty's

pleasure that any of his subjects should be thus had to prison without good cause shewed before. Upon receipt of Sir Edward's letter, Everard discharged me, I taking the oaths of allegiance and supremacy. This day's work cost me thirty-seven shillings. Afterwards Everard stood to be Burgess for Westminster; sent me to procure him voices. I returned answer, that of all men living he deserved no courtesy from me, nor should have any.

In this year 1660, I sued out my pardon under the Broad Seal of England, being so advised by good counsel, because there should be no obstruction; I passed as William Lilly, Citizen and Salter of London; it cost me thirteen pounds six shillings and eight pence.

There happened a verification of an astrological {208}judgment of mine in this year, 1660, which, because it was predicted sixteen years before it came to pass, and the year expressly nominated, I thought fit to mention.

In page 111 of my *Prophetical Merlin*, upon three sextile Aspects of Saturn and Jupiter, made in 1659 and 1660, I wrote thus—

'This their friendly salutation comforts us in England, every man now possesses his own vineyard; our young youth grow up unto man's estate, and our old men live their full years; our nobles and gentlemen root again; our yeomanry, many years disconsolated, now take pleasure in their husbandry. The merchant sends out ships, and hath prosperous returns; the mechanick hath quick trading: here is almost a new world; new laws, new Lords. Now my country of England {209}shall shed no more tears, but rejoice with, and in the many blessings God gives or affords her annually.'

And in the same book, page 118, over-against the year 1660, you shall find, A bonny Scot acts his part.

The long Parliament would give Charles the Second no other title than King of Scots.

I also wrote to Sir Edward Walker, Kt. Garter King at Arms in 1659, he then being in Holland—

Tu, Dominusque vester videbitis Angliam, infra duos annos.—For in 1662, his moon came by direction to the body of the sun.

But he came in upon the ascendant directed unto the trine of Sol and antiscion of Jupiter.

And happy it was for the nation he did come in, and long and prosperously may he reign amongst us.

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In 1663 and 1664, I had along and tedious law-suit in Chancery, M.C. coming to quartile of Saturn; and the occasion of that suit, was concerning houses; and my enemy, though aged, had no beard, was really saturnine. We came unto a hearing Feb. 1664, before the Master of the Rolls, Sir Harbottle Grimston, where I had the victory, but no costs given me.

My adversary, not satisfied with that judgment, petitioned that most just and honourable man, the Lord Chancellor Hyde, for a re-hearing his cause before him.

It was granted, and the 13th June, 1664, my M.C. then directed to quartile of Venus and Sol. His Lordship most judiciously heard it with much attention, and when my adversary's counsel had urged those depositions which they had against me, his Lordship stood up, and said,

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'Here is not one word against Mr. Lilly.'—

I replied, 'My Lord, I hope I shall have costs.'

'Very good reason,' saith he; and so I had: and, at my departure out of court, put off his hat, and bid 'God be with you.'

This is the month of Dec. 1667, wherein, by misfortune, he is much traduced and highly persecuted by his enemies: is also retired, however not in the least questioned for any indirect judgment as Chancellor, in the Chancery; [but in other things he hath been very foul, as in the articles drawn up by the Parliament against him, it appears. Which articles I presume you have not seen, otherwise you would have been of another mind, A W] for there was never any person sat in that place, who executed justice with more uprightness, or judgment, or quickness for dispatch, than this very noble Lord. God, I {212}hope, in mercy will preserve his person from his enemies, and in good time restore him unto all his honours again: from my soul I wish it, and hope I shall live to see it. Amen: *Fiat oh tu Deus justitiæ*.

In 1663 and 1664, I was made churchwarden of Walton upon Thames, settling as well as I could the affairs of that distracted parish, upon my own charges; and upon my leaving the place, forgave them seven pounds odd money due unto me.

In 1664, I had another law-suit with Captain Colborn, Lord of the manor of Esher, concerning the rights of the parish of Walton. He had newly purchased that manor, and having one hundred and fifty acres of ground, formerly park and wood ground lying in our parish, conceived, he had right of common in our parish of Walton: thereupon, he puts three hundred sheep upon the common; part {213}whereof I impounded: he replevins them, and gave me a declaration. I answered it. The trial was to be at the Assizes at Kingston in April 1664. When the day of trial came, he had not one witness in his cause, I had many; whereupon upon conference, and by mediation, he gave me eleven pounds for my charges sustained in that suit, whereof I returned him back again fifty shillings: forty shillings for himself, and ten shillings for the poor of the parish he lived in.

This I did at my own cost and charges, not one parishioner joining with me. I had now M.C. under quartile of Venus and Sol—both in my second, ergo, I got money by this thing, or suit. Sir Bolstrode Whitlock gave me counsel.

Now I come unto the year 1665, wherein that horrible and devouring plague so extreamly raged in the city of London. 27th {214}of June 1665, I retired into the country to my wife and family, where since I have wholly continued, and so intend by permission of God. I had, before I came away, very many people of the poorer sort frequented my lodging, many whereof were so civil, as when they brought waters, viz. urines, from infected people, they would stand purposely at a distance. I ordered those infected, and not like to die, cordials, and caused them to sweat, whereby many recovered. My landlord of the house was afraid of those poor people, I nothing at all. He was desirous I should be gone. He had four children: I took them with me into the country and provided for them. Six weeks after I departed, he, his wife, and man-servant died of the plague.

In *Monarchy or no Monarchy*, printed 1651, I had framed an Hieroglyphick, which you {215}may see in page the 7th, representing a great sickness and mortality; wherein you may see the representation of people in their winding-sheets, persons digging graves and sepultures, coffins, &c. All this was performed by the more secret *Key of Astrology*, or *Prophetical Astrology*.

In 1666, happened that miraculous conflagration in the city of London, whereby in four days, the most part thereof was consumed by fire. In my *Monarchy or no Monarchy*, the next side after the coffins and pickaxes, there is a representation of a great city all in flames of fire. The memorial whereof some Parliament men remembering, thought fit to send for me before that Committee which then did sit, for examination of the causes of the fire; and whether there was no treachery or design in the business, his

Majesty being then in war both with the French and Dutch. {216}The summons to appear before that Committee was as followeth.

'*Monday, 22d October*, 1666.

'At the Committee appointed to enquire after the causes of the late fires:

'ORDERED,

'That Mr. Lilly do attend this Committee on Friday next, being the 25th of October, 1666, at two of the clock in the afternoon, in the Speaker's chamber; to answer such questions as shall be then and there asked him.

'ROBERT BROOKE.'

By accident I was then in London, when the summons came unto me. I was timorous of Committees, being ever by some of them calumniated, upbraided, scorned, and derided. However I must and did appear; and {217}let me never forget that great affection and care yourself (Oh most excellent and learned Esquire Ashmole) shewed unto me at that time. First, your affection in going along with me all that day; secondly, your great pains and care, in speaking unto many worthy Members of that Committee your acquaintance, that they should befriend me, and not permit me to be affronted, or have any disgraceful language cast upon me. I must seriously acknowledge the persuasions so prevailed with those generous souls, that I conceive there was never more civility used unto any than unto myself; and you know, there were no small number of Parliament men appeared, when they heard I was to be there.

Sir Robert Brooke spoke to this purpose:

'Mr. Lilly, This Committee thought fit to summon you to appear before them this day, {218}to know, if you can say any thing as to the cause of the late fire, or whether

there might be any design therein. You are called the rather hither, because in a book of your's, long since printed, you hinted some such thing by one of your hieroglyphics.' Unto which I replied,

'May it please your Honours,

'After the beheading of the late King, considering that in the three subsequent years the Parliament acted nothing which concerned the settlement of the nation in peace; and seeing the generality of people dissatisfied, the citizens of London discontented, the soldiery prone to mutiny, I was desirous, according to the best knowledge God had given me, to make enquiry by the art I studied, what might from that time happen unto the Parliament and nation in general. At last, having {219}satisfied myself as well as I could, and perfected my judgment therein, I thought it most convenient to signify my intentions and conceptions thereof, in Forms, Shapes, Types, Hieroglyphicks, &c. without any commentary, that so my judgment might be concealed from the vulgar, and made manifest only unto the wise. I herein imitating the examples of many wise philosophers who had done the like.'

'Sir Robert,' saith one, 'Lilly is yet *sub vestibulo*.'

I proceeded further. Said I, 'Having found, Sir, that the city of London should be sadly afflicted with a great plague, and not long after with an exorbitant fire, I framed these two hieroglyphics as represented in the book, which in effect have proved very true.'

'Did you foresee the year?' said one.

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'I did not,' said I, 'or was desirous: of that I made no scrutiny.' I proceeded—

'Now, Sir, whether there was any design of burning the city, or any employed to that purpose, I must deal ingenuously with you, that since the fire, I have taken much pains in the search thereof, but cannot or could not give myself any the least satisfaction therein. I conclude, that it was the only finger of God; but what instruments he used thereunto, I am ignorant.'

The Committee seemed well pleased with what I spoke, and dismissed me with great civility.

Since which time no memorable action hath happened unto me, my retirement impeding all concourse unto me.

I have many things more to communicate, which I shall do, as they offer themselves to memory.

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In anno 1634, and 1635, I had much familiarity with John Hegenius, Doctor of Physick, a Dutchman, an excellent scholar and an able physician, not meanly versed in astrology. Unto him, for his great civility, I communicated the art of framing Sigils, Lamens, &c. and the use of the Mosaical Rods:—and we did create several Sigils to very good purpose. I gave him, the true key thereof, *viz.* instructed him of their forms, characters, words, and last of all, how to give them vivification, and what number or numbers were appropriated to every planet: *Cum multis aliis in libris veterum latentibus; aut perspicuè non intellectis*.

I was well acquainted with the Speculator of John a Windor, a scrivener, sometimes living in Newbury. This Windor was club-fisted, wrote with a pen betwixt both his hands. I have seen many bonds and bills {222}wrote by him. He was much given to debauchery, so that at some times the Daemons would not appear to the Speculator; he

would then suffumigate: sometimes, to vex the spirits, he would curse them, fumigate with contraries. Upon his examination before Sir Henry Wallop, Kt. which I have seen, he said, he once visited Dr. Dee in Mortlack; and out of a book that lay in the window, he copied out that call which he used, when he invocated—

It was that—which near the beginning of it hath these words,

Per virtutem illorum qui invocant nomen tuum,
Hermeli—*mitte nobis tres Angelos, &c*.

Windor had many good parts, but was a most lewd person: My master Wright knew him well, and having dealing in those parts, made use of him as a scrivener.

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Oliver Withers, servant to Sir H. Wallop, brought up John a Windor's examination unto London, purposely for me to peruse. This Withers was Mr. Fiske's scholar three years more or less, to learn astrology of him; but being never the wiser, Fiske brought him unto me: by shewing him but how to judge one figure, his eyes were opened: He made the Epistle before Dr. Neve's book, now in Mr. Sander's hands, was very learned in the Latin, Greek, and Hebrew tongues.

Having mentioned Dr. John Dee, I hold it not impertinent to speak something of him; but more especially of Edward Kelly's Speculator.

Dr. Dee himself was a Cambro Briton, educated in the university of Oxford, there took his degree of Doctor; afterwards for many years in search of the profounder studies, travelled into foreign parts: to be serious, {224}he was Queen Elizabeth's intelligencer, and had a salary for his maintenance from the Secretaries of State. He was a ready witted man, quick of apprehension, very learned, and of great judgment in the Latin and Greek tongues. He was a very great investigator of the more secret Hermetical learning,

a perfect astronomer, a curious astrologer, a serious geometrician; to speak truth, he was excellent in all kinds of learning.

With all this, he was the most ambitious person living, and most desirous of fame and renown, and was never so well pleased as when he heard himself stiled Most Excellent.

He was studious in chymistry, and attained to good perfection therein; but his servant, or rather companion, Kelly, out-went him, *viz.* about the Elixir or Philosopher's Stone; which neither Kelly or Dee attained by their {225}own labour and industry. It was in this manner Kelly obtained it, as I had it related from an ancient minister, who knew the certainty thereof from an old English merchant, resident in Germany, at what time both Kelly and Dee were there.

Dee and Kelly being in the confines of the Emperor's dominions, in a city where resided many English merchants, with whom they had much familiarity, there happened an old Friar to come to Dr. Dee's lodging. Knocking at the door, Dee peeped down the stairs. 'Kelly,' says he, 'tell the old man I am not at home.' Kelly did so. The Friar said, 'I will take another time to wait on him.' Some few days after, he came again. Dee ordered Kelly, if it were the same person, to deny him again. He did so; at which the Friar was very angry. 'Tell thy master I came to speak with him and to do him {226}good, because he is a great scholar and famous; but now tell him, he put forth a book, and dedicated it to the Emperor: it is called *Monas Hierogliphicas*. He understands it not. I wrote it myself, I came to instruct him therein, and in some other more profound things. Do thou, Kelly, come along with me, I will make thee more famous than thy master Dee.'

Kelly was very apprehensive of what the Friar delivered, and thereupon suddenly retired from Dee, and wholly applied unto the Friar; and of him either had the Elixir ready made, or the perfect method of its preparation and making. The poor Friar lived a very

short time after: whether he died a natural death, or was otherwise poisoned or made away by Kelly, the merchant, who related this, did not certainly know.

How Kelly died afterwards at Prague, you {227}well know: he was born at Worcester, had been an apothecary. Not above thirty years since he had a sister lived in Worcester, who had some gold made by her brother's projection.

Dr. Dee died at Mortlack in Surrey, very poor, enforced many times to sell some book or other to buy his dinner with, as Dr. Napier of Linford, in Buckinghamshire, oft related, who knew him very well.

I have read over his book of *Conference with Spirits*, and thereby perceive many weaknesses in the manage of that way of Mosaical learning: but I conceive, the reason why he had not more plain resolutions, and more to the purpose, was, because Kelly was very vicious, unto whom the angels were not obedient, or willingly did declare the questions propounded; but I could give other reasons, but those are not for paper.

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I was very familiar with one Sarah Skelhorn, who had been Speculatrix unto one Arthur Gauntlet about Gray's-Inn-Lane, a very lewd fellow, professing physick. This Sarah had a perfect sight, and indeed the best eyes for that purpose I ever yet did see. Gauntlet's books, after he was dead, were sold, after I had perused them, to my scholar Humphreys: there were rare notions in them. This Sarah lived a long time, even until her death, with one Mrs. Stockman in the Isle of Purbeck, and died about sixteen years since. Her mistress one time being desirous to accompany her mother, the Lady Beconsfield, unto London, who lived twelve miles from her habitation, caused Sarah to inspect her crystal, to see if she, viz. her mother, was gone, yea or not: the angels appeared, and shewed her mother opening a trunk, and taking out a red waistcoat, whereby she perceived {229}she was not gone. Next day she went to her mother's, and there, as she

entered the chamber, she was opening a trunk, and had a red waistcoat in her hand. Sarah told me oft, the angels would for some years follow her, and appear in every room of the house, until she was weary of them.

This Sarah Skelhorn, her call unto the crystal began,

'*Oh ye good angels, only and only*,' &c.

Ellen Evans, daughter of my tutor Evans, her call unto the crystal was this:

'*O Micol, O tu Micol, regina pigmeorum veni, &c*.'

Since I have related of the Queen of Fairies, I shall acquaint you, that it is not for every one, or every person, that these angelical creatures will appear unto, though they may say over the call, over and over, or indeed is it given to very many persons to {230}endure their glorious aspects; even very many have failed just at that present when they are ready to manifest themselves; even persons otherwise of undaunted spirits and firm resolution, are herewith astonished, and tremble; as it happened not many years since with us. A very sober discreet person, of virtuous life and conversation, was beyond measure desirous to see something in this nature. He went with a friend into my Hurst Wood: the Queen of Fairies was invocated, a gentle murmuring wind came first; after that, amongst the hedges, a smart whirlwind; by and by a strong blast of wind blew upon the face of the friend,—and the Queen appearing in a most illustrious glory, 'No more, I beseech you,' (quoth the friend:) 'My heart fails; I am not able to endure longer.' Nor was he: his black curling hair rose up, and I believe a bullrush would {231}have beat him to the ground: he was soundly laughed at, &c.

Sir Robert Holborn, Knight, brought once unto me Gladwell[18] of Suffolk, who had formerly had sight and conference with Uriel and Raphael, but lost them both by carelessness; so that neither of them both would but rarely appear, and then presently

be gone, resolving nothing. He would have given me two hundred pounds to have assisted him for their recovery, but I am no such man.—Those glorious creatures, if well commanded, and well observed, do teach the master any thing he desires; *Amant secreta, fugiunt aperta*. The Fairies love the southern side {232}of hills, mountains, groves.—Neatness and cleanliness in apparel, a strict diet, and upright life, fervent prayers unto God, conduce much to the assistance of those who are curious these ways.

Footnote 18:(return)

Mr. Gilbert Wakering gave him his berril when he died; it was of the largeness of a good big orange, set in silver, with a cross on the top, and another on the handle; and round about engraved the names of these angels, Raphael, Gabriel, Uriel.

It hath been my happiness to meet with many rarities in my time unexpectedly. I had a sister lived in the Minories, in that very house where formerly had lived one Evans, not my tutor, but another far exceeding him in astrology, and all other occult learning, questioned for his life about 1612. I am sure it was when the present Earl of Manchester's father was Lord Chief Justice of England. He was found guilty by a peevish Jury: but petitioning King James by a Greek petition, as indeed he was an excellent Grecian; 'By my saul,' said King James, 'this man shall not die; I think he is a better Grecian than any of my Bishops:' so his life was spared, {233}&c. My sister's master when new modelling the house, broke up a window, under which were Evans's secret manuscripts,[19] and two moulds in brass; one of a man, the other of a woman. I bought the moulds and book for five shillings; the secrets were wrote in an imperfect Greek character; but after I found the vowels, all the rest were presently clear enough.

Footnote 19:(return)

From these manuscripts he gained his first knowledge.

You see, most worthy Sir, I write freely; it is out of the sincerity of my affection, many things wrote by me having been more fit for a sepulture than a book: But,

Quo major est virorum præstantium, tui similium inopia; eo mihi charior est, & esse debet & amicitia tua: quam quidem omnibus officiis, & studiis, quæ a summa benevolentia possunt, perpetuò colam: However, who study the {234}curiosities before-named, if they are not very well versed in astrology, they shall rarely attain their desired ends. There was, in the late times of troubles, one Mortlack, who pretended unto Speculations, had a crystal, a call of Queen Mab, one of the Queen of Fairies; he deluded many thereby: at last I was brought into his company; he was desired to make invocation, he did so; nothing appeared, or would: three or four times in my company he was put upon to do the work, but could not; at last he said he could do nothing as long as I was in presence. I at last shewed him his error, but left him as I found him, a pretending ignoramus.

I may seem to some to write incredibilia; be it so, but knowing unto whom, and for whose only sake, I do write them, I am much comforted therewith, well knowing you are the most knowing man in these curiosities of {235}any now living in England; and therefore it is my hope, these will be a present well-becoming you to accept.

Præclara omnia quam difficilia sint, his præsertim temporibus. (Celeberrimè Armiger,) non te fugit; and therefore I will acquaint you with one memorable story related unto me by Mr. John Marr, an excellent mathematican and geometrician, whom I conceive you remember: he was servant to King James and Charles the First.

At first, when the Lord Napier, or Marchiston, made publick his Logarithms, Mr. Briggs, then reader of the astronomy lecture at Gresham-College in London, was so surprized with admiration of them, that he could have no quietness in himself, until he had seen that noble person the Lord Marchiston, whose only invention they were: he

acquaints John Marr herewith, who went into {236}Scotland before Mr. Briggs, purposely to be there when these two so learned persons should meet. Mr. Briggs appoints a certain day when to meet at Edinburgh: but failing thereof, the Lord Napier was doubtful he would not come. It happened one day as John Marr and the Lord Napier were speaking of Mr. Briggs; 'Ah, John,' saith Marchiston, 'Mr. Briggs will not now come:' at the very instant one knocks at the gate; John Marr hasted down, and it proved Mr. Briggs, to his great contentment. He brings Mr. Briggs up into my Lord's chamber, where almost one quarter of an hour was spent, each beholding the other almost with admiration, before one word was spoke: at last Mr. Briggs began.

'My Lord, I have undertaken this long journey purposely to see your person, and to know by what engine of wit or ingenuity {237}you came first to think of this most excellent help unto astronomy, viz. the Logarithms; but, my Lord, being by you found out, I wonder no body else found it out before, when, now known, it is so easy.' He was nobly entertained by the Lord Napier, and every summer after that, during the Lord's being alive, this venerable man, Mr. Briggs, went purposely into Scotland to visit him; *Tempora nunc mutantur*.

These two persons were worthy men in their time; and yet the one, viz. Lord Marchiston, was a great lover of astrology, but Briggs the most satirical man against it that hath been known: but the reason hereof I conceive was, that Briggs was a severe Presbyterian, and wholly conversant with persons of that judgment; whereas the Lord Marchiston was a general scholar, and deeply read in all divine and human histories: it is {238}the same Marchiston who made that most serious and learned exposition upon the *Revelation of St. John*; which is the best that ever yet appeared in the world.

Thus far proceeded Mr. William Lilly in setting down the account of his life, with some other things of note. Now shall be added something more which afterwards happened during his retirement at his house at Hersham, until his death.

He left London in the year 1665, (as he hath before noted) and betook himself to the study of physick; in which, having arrived at a competent degree of knowledge, assisted by diligent observation and practice, he desired his old friend, Mr. Ashmole, to obtain of his Grace Dr. Sheldon, then Lord Archbishop of Canterbury, a license for the practice of physick; which upon application to {239}his Grace, and producing a testimonial (October 8, 1670,) under the hands of two physicians of the college in London, on Mr. Lilly's behalf, he most readily granted, in the manner following, viz.

'**Gilbertus** providentia divina Cantuariensis Archiepiscopus totius Angliæ Primas & Metropolitanus, dilecto nobis in Christo **Gulielmo Lilly** in Medicinis Professori, salutem, gratiam, & benedictionem. Cum ex fide digna relatione acceperimus Te in arte sive facultate Medicinæ per non modicum tempus versatum fuisse, multisque de salute & sanitate corporis verè desperatis (Deo Omnipotente adjuvante) subvenisse, eosque sanasse, nec non in arte predicta multorum peritorum laudabili testimonio pro experientia, fidelitate, diligentia & industria tuis circa curas quas susceperis peragendas in hujusmodi Arte Medicinæ meritò commendatum {240}esse, ad practicandum igitur & exercendum dictam Artem Medicinæ in, & per totam Provinciam nostram Cant' (Civitate Lond' & circuitu septem milliarum eidem prox' adjacen' tantummodo exceptis) ex causis prædictis & aliis nos in hac per te justè moventibus, præstito primitus per te juramento de agnoscendo Regiam suprema potestatem in causis ecclesiasticis & temporalibus ac de renunciando, refutando, & recusando omni, & omnimodæ jurisdictioni potestati, authoritati & superioritati foraneis juxta vim formam & effectum statui Parliamenti hujus inclyti Regni Angliæ in ea parte editi & provisi quantum nobis per statuta hujus Regni Angliæ liceat & non aliter neque alio modo te admittimus &

approbamus, tibique Licentiam & Facultatem nostras in hâc parte, tenore præsentium quamdiu te benè & laudabiliter gesseris benignè concedimus & elargimur. {241}In cujus rei testimonium sigillum (quo in hâc parte utimur) praesentibus apponi fecimus. Dat. undecimo die mensis Octobris, Anno Domini 1670. Nostræque translationis Anno Octavo.

Sigillum

Radulph. Snowe
ET
Edm. Sherman

S. Rich. Lloyd, Sur.

'Vicarii in Spiritualibus Generalis per Provinciam Cantuariensem.'

Hereupon he began to practise more openly, and with good success; and every Saturday rode to Kingston, where the poorer sort flocked to him from several parts, and received much benefit by his advice and prescriptions, which he gave them freely, and {242}without money. From those that were more able, he now and then received a shilling, and sometimes an half crown, if they offered it to him, otherwise he demanded nothing; and, in truth, his charity towards poor people was very great, no less than the care and pains he took in considering and weighing their particular cases, and applying proper remedies to their infirmities, which gained him extraordinary credit and estimation.

He was of a strong constitution, and continued generally in good health, till the 16th of August 1674, when a violent humour discovered itself in red spots all over his body, with little pushes in his head. This, in the winter (18 December) following, was

seconded by a distemper whereof he fell sick, and was let blood in the left foot, a little above the ancle.

The 20th of December following, a humour {243}descended from his head to his left side, from eight o'clock at night till the next morning; and then staying a while in the calf of his leg, at length descended towards his toes, the anguish whereof put him into a fever. This humour fixed in two places on the top of his left foot (one in that where he was let blood two days before) which (upon application of pledgets) growing ripe, they were (28 Dec.) lanced by Mr. Agar of Kingston, his apothecary (and no less a skilful Surgeon:) after which he began to be at ease, his fever abated, and within five months the cure was perfected.

The 7th of November 1675, he was taken with a violent fit of vomiting for some hours, to which a fever succeeded, that continued four months: this brought his body exceeding low, together with a dimness in his eyes, {244}which after occasioned him to make use of Mr. Henry Coley, as his amanuensis, to transcribe (from his dictates) his astrological judgments for the year 1677; but the monthly observations for that year, were written with his own hand some time before, though by this time he was grown very dim-sighted. His judgments and observations for the succeeding years, till his death, (so also for the year 1682,) were all composed by his directions, Mr. Coley coming to Hersham the beginning of every summer, and stayed there, till, by conference with him, he had dispatched them for the press; to whom, at these opportunities, he communicated his way of judgment, and other astrological arcanas.

In the beginning of the year 1681, he had a flux, which weakened him much, yet after {245}some time his strength encreased; but now his sight was wholly taken from him, not having any glimmering as formerly.

He had dwelt many years at Hersham, where his charity and kindness to his poor neighbours was always great and hearty; and the 30th of May 1681, towards the evening, a dead palsy began to seize his left side. The second of June, towards evening, he took his bed, and then his tongue began to falter. The next day he became very dull and heavy: sometimes his senses began to fail him. Henceforward he took little or nothing, for his larinx swelled, and that impeded his swallowing.

The fourth of June, Mr. Ashmole went to visit him, and found he knew him, but spake little, and some of that scarce intelligible; for the palsy began now to seize upon his tongue.

{246}

The eighth of June he lay in a great agony, insomuch that the sweat followed drop after drop, which he bore with wonderful courage and patience (as indeed he did all his sickness) without complaint; and about three o'clock the next morning, he died, without any shew of trouble or pangs. Immediately before his breath went from him, he sneezed three times.

He had often, in his life-time, desired Mr. Ashmole to take care of his funeral, and now his widow desired the same: whereupon Mr. Ashmole obtained leave from Sir Mathew Andrews (who had the parsonage of Walton) to bury him in the chancel of that church.

The 10th of June, his corse was brought thither, and received by the minister (in his surplice) at the Litch Gates, who, passing before the body into the church, read the first part of the *Office for the Burial of the Dead*. {247}In the reading desk he said all the evening service, and after performed the rest of the office (as established by law) in the chancel, at the interment, which was about eight o'clock in the evening, on the left side of the communion table, Mr. Ashmole assisting at the laying him in his grave;

whereupon afterwards (9 July 1681) he placed a fair black marble stone, (which cost him six pounds four shillings and six-pence) with this inscription following:

Ne Oblivione conteretur Urna

GULIELMI LILLII

ASTROLOGI PERITISSIMI,

QUI FATIS CESSIT

Quinto Idus Junii Anno Christi Juliano

M DC LXXXI.

Hoc Illi posuit amoris Monumentum

ELIAS ASHMOLE,

ARMIGER.

{248}

Shortly after his death, Mr. Ashmole bought his library of books of Mrs. Ruth Lilly, (his widow and executrix) for fifty pounds: he oft times, in his life-time, expressed, that if Mr. Ashmole would give that sum, he should have them.

The following Epitaphs (Latin and English) were made by George Smalridge, then a scholar at Westminster, after Student of Christ-Church in Oxford.

In Mortem Viri Doctissimi Domini **Gulielmi**
Lilly, *Astrologi, nuper defuncti*.

zaid n. adwan

Occidit atque suis annalibus addidit atram
Astrologus, quâ non tristior ulla, diem
Pone triumphales, lugubris Luna, quadrigas;
Sol mæstum piceâ nube reconde caput.
Illum, qui Phoebi scripsit, Phoebesq; labores
Eclipsin docuit Stella maligna pati.

{249}

Invidia Astrorum cecidit, qui Sidera rexit
Tanta erat in notas scandere cura domos.
Quod vidit, visum cupiit, potiturq; cupito
C[oe]lo, & Sidereo fulget in orbe decus.
Scilicet hoc nobis prædixit ab ane Cometa,
Et fati emicuit nuncia Stella tui
Fallentem vidi faciem gemuiq; videndo
Illa fuit vati mortis imago suo,
Civilis timuere alii primordia belli
Jejunam metuit plebs stupefata faniem
Non tantos tulerat bellumve famesve dolores:
Auspiciis essent hæc relevanda tuis.
In cautam subitus plebem nunc opprimat ensis,
Securos fati mors violenta trahat.
Nemo est qui videat moneatq; avertere fatum,
Ars jacet in Domini funera mersa sui
Solus naturæ reservare arcana solebat,
Solus & ambigui solvere jura poti.
Lustrâsti erantes benè finâ mente Planeta
Conspectum latuit stellata nulla tuum
Defessos oculos pensârunt lumina mentis

Firesias oculis, mentibus Argus eras.

{250}

Cernere, Firesia, poteras ventura, sed, Arge,
In fatum haud poteras sat vigil esse tuum
Sed vivit nomen semper cum sole vigebit,
Immemor Astrologi non erit ulla dies
Sæcla canent laudes, quas si percurrere cones,
Arte opus est, Stellas quâ numerare soles
Hæreat hoc carmen cinerum custodibus urnis,
Hospes quod spargens marmora rore legat.
"Hic situs est, dignus nunquam cecidisse Propheta;
Fatorum interpres fata inopina subit.
Versari æthereo dum vixit in orbe solebat:
Nunc humilem jactat Terra superba virum.
Sed Coelum metitur adhuc resupinus in urnæ
Vertitur in solitos palpebra clausa polos.
Huic busto invigilant solenni lampade Musaæ
Perpetuo nubes imbre sepulchra rigant.
Ille oculis movit distantia Sidera nostris,
Illam amota oculis traxit ad astra Deus."

An **Elegy** *upon the Death of* **William Lilly**, *the Astrologer*.

Our Prophet's gone; no longer may our ears
Be charm'd with musick of th' harmonious spheres.

{251}

Let sun and moon withdraw, leave gloomy night
To shew their **nuncio's** fate, who gave more light
To th' erring world, than all the feeble rays

Of sun or moon; taught us to know those days
Bright **Titan** makes; follow'd the hasty sun
Through all his circuits; knew th' unconstant moon,
And more unconstant ebbings of the flood;
And what is most uncertain, th' factious brood,
Flowing in civil broils: by the heavens could date
The flux and reflux of our dubious state.
He saw the eclipse of sun, and change of moon
He saw, but seeing would not shun his own:
Eclips'd he was, that he might shine more bright,
And only chang'd to give a fuller light.
He having view'd the sky, and glorious train
Of gilded stars, scorn'd longer to remain
In earthly prisons: could he a village love,
Whom the twelve houses waited for above?
The grateful stars a heavenly mansion gave
T' his heavenly soul, nor could he live a slave
To mortal passions, whose immortal mind,
Whilst here on earth, was not to earth confin'd.
{252}
He must be gone, the stars had so decreed;
As he of them, so they of him, had need.
This message 'twas the blazing comet brought;
I saw the pale-fac'd star, and seeing thought
(For we could guess, but only **Lilly** knew)
It did some glorious hero's fall foreshew:
A hero's fall'n, whose death, more than a war,
Or fire, deserv'd a comet: th' obsequious star

zain. adwan

Could do no less than his sad fate unfold,
Who had their risings, and their settings told.
Some thought a plague, and some a famine near;
Some wars from France, some fires at home did fear:
Nor did they fear too much: scarce kinder fate,
But plague of plagues befell th' unhappy state
When **Lilly** died. Now swords may safely come
From France or Rome, fanaticks plot at home.
Now an unseen, and unexpected hand,
By guidance of ill stars, may hurt our land;
Unsafe, because secure, there's none to show
How England may avert the fatal blow.
He's dead, whose death the weeping clouds deplore,
I wish we did not owe to him that show'r
{253}
Which long expected was, and might have still
Expected been, had not our nation's ill
Drawn from the heavens a sympathetic tear:
England hath cause a second drought to fear.
We have no second **Lilly**, who may die,
And by his death may make the heavens cry.
Then let your annals, Coley, want this day,
Think every year leap-year; or if't must stay,
Cloath it in black; let a sad note stand by,
And stigmatize it to posterity.

Here follows the Copy of an Indictment filed against Mr. Lilly, for which see page 167 of his Life.

The jurors for the Lord Protector of the commonwealth of England, Scotland, and Ireland, &c. upon their oaths do present, that William Lilly, late of the Parish of St. Clements Danes, in the County of Middlesex, Gent. not having the fear of God before his eyes, but being moved and seduced by the instigation {254}of the devil, the 10th day of July, in the Year of our Lord, 1654, at the Parish aforesaid, in the County aforesaid, wickedly, unlawfully, and deceitfully, did take upon him, the said William Lilly, by inchantment, charm, and sorcery, to tell and declare to one Anne East, the wife of Alexander East, where ten waistcoats, of the value of five pounds, of the goods and chattels of the said Alexander East, then lately before lost and stolen from the said Alexander East, should be found and become; and two shilling and sixpence in monies numbred, of the monies of the said Alexander, from the said Anne East, then and and there unlawfully and deceitfully, he, the said William Lilly, did take, receive, and had, to tell and declare to her the said Anne, where the said goods, so lost and stolen as aforesaid, should be found and become: And also that he, the said William Lilly, on {255}the said tenth day of July, in the Year of our Lord, 1654, and divers other days and times, as well before as afterwards, at the said Parish aforesaid, in the County aforesaid, unlawfully and deceitfully did take upon him, the said William Lilly, by inchantment, charm, and sorcery, to tell and declare to divers other persons, to the said jurors, yet unknown, where divers goods, chattels, and things of the said persons yet unknown, there lately before lost and stolen from the said persons yet unknown, should be found and become; and divers sums of monies of the said persons yet unknown, then and there unlawfully and deceitfully, he the said William Lilly did take, receive, and had, to tell and declare to the said persons yet unknown, where their goods, chattels, and things, so lost and stolen, as aforesaid, should be found and become, in contempt of the laws of England, to the great {256}damage and deceit of the said Alexander and Anne, and of the said other persons yet unknown, to the evil and pernicious example of all others in the like case offending, against the form of the statute in this case made and provided, and against the publick peace, &c.

Anne East, Emme Spencer, Jane Gold, Katherme Roberts, Susannah Hulinge.

{257}

Butler's Character of **William Lilly**.

"A cunning man[20], hight **Sidrophel**.
That deals in destiny's dark counsels,
And sage opinions of the moon sells;
To whom all people, far and near,
On deep importances repair;
When brass and pewter hap to stray,
And linen slinks out of the way:

Footnote 20:(return)

A cunning man, hight Sidrophel. 'William Lilly, the famous astrologer of those times, who in his yearly almanacks foretold victories for the parliament with as much certainty as the Preachers did in their sermons; and all or most part of what is ascribed to him by the Poet, the reader will find verified in his "Letter," (if we may believe it) wrote by himself to Elias Ashmole, Esq.' For further curious information respecting William Lilly, the reader may consult *Dr. Grey's Notes to Hudibras*, vol. ii. page 163, &c. Edition 1819, in 3 vols, 8vo.

{258}

When geese and pullen are seduc'd,
And sows of sucking pigs are chous'd:
When cattle feel indisposition,
And need th' opinion of physician;
When murrain reigns in hogs or sheep,
And chickens languish of the pip;
When yeast and outward means do fail,

And have no power to work on ale;
When butter does refuse to come,
And love proves cross and humoursome;
To him with questions and with urine,
They for discov'ry flock, or curing.

He had been long t'wards mathematics,
Opticks, philosophy, and staticks,
Magick, horoscopy, astrology,
And was old dog at physiology:
But, as a dog that turns the spit,
Bestirs himself, and plies his feet
To climb the wheel, but all in vain,
His own weight brings him down again;
And still he's in the self-same place,
Where at his setting out he was:
{259}
So, in the circle of the arts,
Did he advance his nat'ral parts:
Till falling back still, for retreat,
He fell to juggle, cant, and cheat:
For as those fowls that live in water
Are never wet, he did but smatter:
Whate'er he labour'd to appear,
His understanding still was clear,
Yet none a deeper knowledge boasted,
Since old Hodge Bacon, and Bob Grosted,

zain n. adwan

Do not our great *Reformers* use
This **Sidrophel** to forebode news?
To write of victories next year,
And castles taken yet i'th' air?
Of battles fought at sea, and ships
Sunk, two years hence, the last eclipse?
A total o'er throw giv'n the **King**
In Cornwall, horse and foot, next spring?
And has not he point-blank foretold
Whatso'er the *Close Committee* would?
Made Mars and Saturn for the *cause*,
The Moon for *fundamental laws*;
{260}
The Ram, the Bull, the Goat, declare
Against the *Book of Common Prayer*;
The Scorpion take the *Protestation*,
And Bear engage for Reformation;
Made all the *royal stars* recant,
Compound, and take the covenant."

THE END.

MAURICE, PRINTER, FENCHURCH STREET.

*** END OF THE PROJECT GUTENBERG EBOOK WILLIAM LILLY'S HISTORY OF HIS LIFE AND TIMES, FROM THE YEAR 1602 TO 1681 ***

zaid n. adwan

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Part five

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GUY MANNERING

BY SIR WALTER SCOTT

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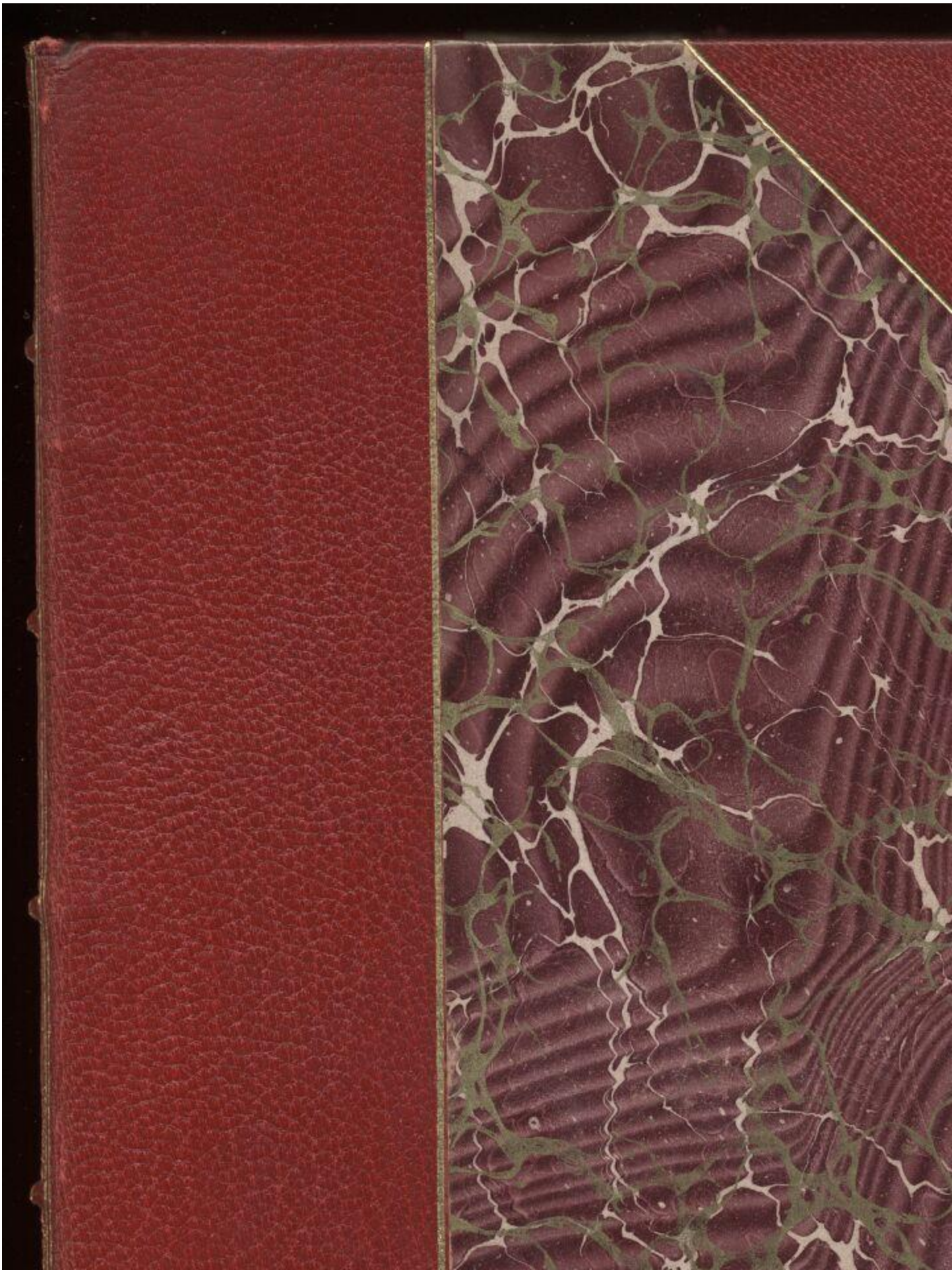

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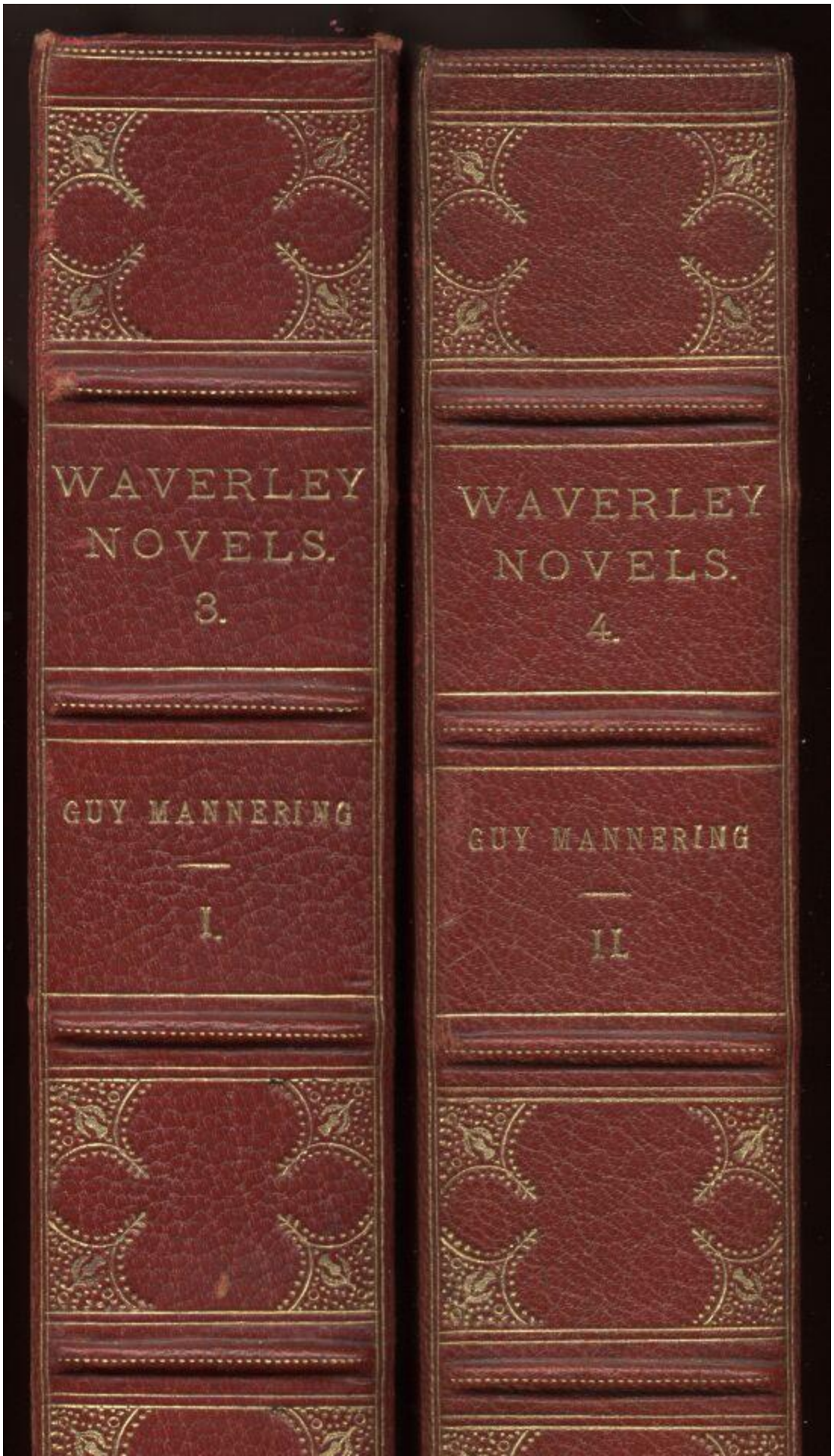
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CONNOISSEUR EDITION

GUY MANNERING

OR

THE ASTROLOGER

IN TWO VOLUMES

VOL. I.

BY SIR WALTER SCOTT, BART.

With Introductory Essay and Notes

BY ANDREW LANG

WITH ILLUSTRATIONS

BOSTON

GUY MANNERING

OR

THE ASTROLOGER

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ENLARGE

VOLUME I

'Tis said that words and signs have power
O'er sprites in planetary hour;
But scarce I praise their venturous part
Who tamper with such dangerous art.

Lay of the Last Minstrel.

THE COMPLETE ENCYCLOPEDIC GUIDE TO ASTROLOGY

INTRODUCTION

The Novel or Romance of Waverley made its way to the public slowly, of course, at first, but afterwards with such accumulating popularity as to encourage the Author to a second attempt. He looked about for a name and a subject; and the manner in which the novels were composed cannot be better illustrated than by reciting the simple narrative on which Guy Mannering was originally founded; but to which, in the progress of the work, the production ceased to bear any, even the most distant resemblance. The tale was originally told me by an old servant of my father's, an excellent old Highlander, without a fault, unless a preference to mountain dew over less potent liquors be accounted one. He believed as firmly in the story as in any part of his creed.

A grave and elderly person, according to old John MacKinlay's account, while travelling in the wilder parts of Galloway, was benighted. With difficulty he found his way to a country seat, where, with the hospitality of the time and country, he was readily admitted. The owner of the house, a gentleman of good fortune, was much struck by the reverend appearance of his guest, and apologised to him for a certain degree of confusion which must unavoidably attend his reception, and could not escape his eye. The lady of the house was, he said, confined to her apartment, and on the point of making her husband a father for the first time, though they had been ten years married. At such an emergency, the laird said, he feared his guest might meet with some apparent neglect.

‘Not so, sir,’ said the stranger; ‘my wants are few, and easily supplied, and I trust the present circumstances may even afford an opportunity of showing my gratitude for your hospitality. Let me only request that I may be informed of the exact minute of the birth; and I hope to be able to put you in possession of some particulars which may influence in an important manner the future prospects of the child now about to come into this busy and changeful world. I will not conceal from you that I am skilful in understanding and interpreting the movements of those planetary bodies which exert their influences on the destiny of mortals. It is a science which I do not practise, like others who call themselves astrologers, for hire or reward; for I have a competent estate, and only use the knowledge I possess for the benefit of those in whom I feel an interest.’ The laird bowed in respect and gratitude, and the stranger was accommodated with an apartment which commanded an ample view of the astral regions.

The guest spent a part of the night in ascertaining the position of the heavenly bodies, and calculating their probable influence; until at length the result of his observations induced him to send for the father and conjure him in the most solemn manner to cause the assistants to retard the birth if practicable, were it but for five minutes. The answer declared this to be impossible; and almost in the instant that the message was returned the father and his guest were made acquainted with the birth of a boy.

The Astrologer on the morrow met the party who gathered around the breakfast table with looks so grave and ominous as to alarm the fears of the father, who had hitherto exulted in the prospects held out by the birth of an heir to his ancient property, failing which event it must have passed to a distant branch of the family. He hastened to draw the stranger into a private room.

‘I fear from your looks,’ said the father, ‘that you have bad tidings to tell me of my young stranger; perhaps God will resume the blessing He has bestowed ere he attains the age of manhood, or perhaps he is destined to be unworthy of the affection which we are naturally disposed to devote to our offspring?’

‘Neither the one nor the other,’ answered the stranger; ‘unless my judgment greatly err, the infant will survive the years of minority, and in temper and disposition will prove all that his parents can wish. But with much in his horoscope which promises many blessings, there is one evil influence strongly predominant, which threatens to subject him to an unhallowed and unhappy temptation about the time when he shall attain the age of twenty-one, which period, the constellations intimate, will be the crisis of his fate. In what shape, or with what peculiar urgency, this temptation may beset him, my art cannot discover.’

‘Your knowledge, then, can afford us no defence,’ said the anxious father, ‘against the threatened evil?’

‘Pardon me,’ answered the stranger, ‘it can. The influence of the constellations is powerful; but He who made the heavens is more powerful than all, if His aid be invoked in sincerity and truth. You ought to dedicate this boy to the immediate service of his Maker, with as much sincerity as Samuel was devoted to the worship in the Temple by his parents. You must regard him as a being separated from the rest of the world. In childhood, in boyhood, you must surround him with the pious and virtuous, and protect him to the utmost of your power from the sight or hearing of any crime, in word or action. He must be educated in religious and moral principles of the strictest description. Let him not enter the world, lest he learn to partake of its follies, or perhaps of its vices. In short, preserve him as far as possible from all sin, save that of which too great a portion belongs to all the fallen race of Adam. With the approach of his twenty-first birthday comes the crisis of his fate. If he survive it, he will be happy and prosperous on earth, and a chosen vessel among those elected for heaven. But if it be otherwise--’ The Astrologer stopped, and sighed deeply.

‘Sir,’ replied the parent, still more alarmed than before, ‘your words are so kind, your advice so serious, that I will pay the deepest attention to your behests; but can you not aid me farther in this most important concern? Believe me, I will not be ungrateful.’

‘I require and deserve no gratitude for doing a good action,’ said the stranger, ‘in especial for contributing all that lies in my power to save from an abhorred fate the harmless infant to whom, under a singular conjunction of planets, last night gave life. There is my address; you may write to me from time to time concerning the progress of the boy in religious knowledge. If he be bred up as I advise, I think it will be best that he come to my house at the time when the fatal and decisive period approaches, that is, before he has attained his twenty-first year complete. If you send him such as I desire, I humbly trust that God will protect His own through whatever strong temptation his fate may subject him to.’ He then gave his host his address, which was a country seat near a post town in the south of England, and bid him an affectionate farewell.

The mysterious stranger departed, but his words remained impressed upon the mind of the anxious parent. He lost his lady while his boy was still in infancy. This calamity, I think, had been predicted by the Astrologer; and thus his confidence, which, like most people of the period, he had freely given to the science, was riveted and confirmed. The utmost care, therefore, was taken to carry into effect the severe and almost ascetic plan of education which the sage had enjoined. A tutor of the strictest principles was employed to superintend the youth’s education; he was surrounded by domestics of the most established character, and closely watched and looked after by the anxious father himself.

The years of infancy, childhood, and boyhood passed as the father could have wished. A young Nazarene could not have been bred up with more rigour. All that was evil was withheld from his observation: he only heard what was pure in precept, he only witnessed what was worthy in practice.

But when the boy began to be lost in the youth, the attentive father saw cause for alarm. Shades of sadness, which gradually assumed a darker character, began to over-cloud the young man’s temper. Tears, which seemed involuntary, broken sleep, moonlight wanderings, and a melancholy for which he could assign no reason, seemed

to threaten at once his bodily health and the stability of his mind. The Astrologer was consulted by letter, and returned for answer that this fitful state of mind was but the commencement of his trial, and that the poor youth must undergo more and more desperate struggles with the evil that assailed him. There was no hope of remedy, save that he showed steadiness of mind in the study of the Scriptures. 'He suffers, continued the letter of the sage,' from the awakening of those harpies the passions, which have slept with him, as with others, till the period of life which he has now attained. Better, far better, that they torment him by ungrateful cravings than that he should have to repent having satiated them by criminal indulgence.'

The dispositions of the young man were so excellent that he combated, by reason and religion, the fits of gloom which at times overcast his mind, and it was not till he attained the commencement of his twenty-first year that they assumed a character which made his father tremble for the consequences. It seemed as if the gloomiest and most hideous of mental maladies was taking the form of religious despair. Still the youth was gentle, courteous, affectionate, and submissive to his father's will, and resisted with all his power the dark suggestions which were breathed into his mind, as it seemed by some emanation of the Evil Principle, exhorting him, like the wicked wife of Job, to curse God and die.

The time at length arrived when he was to perform what was then thought a long and somewhat perilous journey, to the mansion of the early friend who had calculated his nativity. His road lay through several places of interest, and he enjoyed the amusement of travelling more than he himself thought would have been possible. Thus he did not reach the place of his destination till noon on the day preceding his birthday. It seemed as if he had been carried away with an unwonted tide of pleasurable sensation, so as to forget in some degree what his father had communicated concerning the purpose of his journey. He halted at length before a respectable but solitary old mansion, to which he was directed as the abode of his father's friend.

The servants who came to take his horse told him he had been expected for two days. He was led into a study, where the stranger, now a venerable old man, who had been his father's guest, met him with a shade of displeasure, as well as gravity, on his brow. 'Young man,' he said, 'wherefore so slow on a journey of such importance?' 'I thought,' replied the guest, blushing and looking downward,' that there was no harm in travelling slowly and satisfying my curiosity, providing I could reach your residence by this day; for such was my father's charge.' 'You were to blame,' replied the sage, 'in lingering, considering that the avenger of blood was pressing on your footsteps. But you are come at last, and we will hope for the best, though the conflict in which you are to be engaged will be found more dreadful the longer it is postponed. But first accept of such refreshments as nature requires to satisfy, but not to pamper, the appetite.'

The old man led the way into a summer parlour, where a frugal meal was placed on the table. As they sat down to the board they were joined by a young lady about eighteen years of age, and so lovely that the sight of her carried off the feelings of the young stranger from the peculiarity and mystery of his own lot, and riveted his attention to everything she did or said. She spoke little and it was on the most serious subjects. She played on the harpsichord at her father's command, but it was hymns with which she accompanied the instrument. At length, on a sign from the sage, she left the room, turning on the young stranger as she departed a look of inexpressible anxiety and interest.

The old man then conducted the youth to his study, and conversed with him upon the most important points of religion, to satisfy himself that he could render a reason for the faith that was in him. During the examination the youth, in spite of himself, felt his mind occasionally wander, and his recollections go in quest of the beautiful vision who had shared their meal at noon. On such occasions the Astrologer looked grave, and shook his head at this relaxation of attention; yet, on the whole, he was pleased with the youth's replies.

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At sunset the young man was made to take the bath; and, having done so, he was directed to attire himself in a robe somewhat like that worn by Armenians, having his long hair combed down on his shoulders, and his neck, hands, and feet bare. In this guise he was conducted into a remote chamber totally devoid of furniture, excepting a lamp, a chair, and a table, on which lay a Bible. 'Here,' said the Astrologer, 'I must leave you alone to pass the most critical period of your life. If you can, by recollection of the great truths of which we have spoken, repel the attacks which will be made on your courage and your principles, you have nothing to apprehend. But the trial will be severe and arduous.' His features then assumed a pathetic solemnity, the tears stood in his eyes, and his voice faltered with emotion as he said, 'Dear child, at whose coming into the world I foresaw this fatal trial, may God give thee grace to support it with firmness!'

The young man was left alone; and hardly did he find himself so, when, like a swarm of demons, the recollection of all his sins of omission and commission, rendered even more terrible by the scrupulousness with which he had been educated, rushed on his mind, and, like furies armed with fiery scourges, seemed determined to drive him to despair. As he combated these horrible recollections with distracted feelings, but with a resolved mind, he became aware that his arguments were answered by the sophistry of another, and that the dispute was no longer confined to his own thoughts. The Author of Evil was present in the room with him in bodily shape, and, potent with spirits of a melancholy cast, was impressing upon him the desperation of his state, and urging suicide as the readiest mode to put an end to his sinful career. Amid his errors, the pleasure he had taken in prolonging his journey unnecessarily, and the attention which he had bestowed on the beauty of the fair female when his thoughts ought to have been dedicated to the religious discourse of her father, were set before him in the darkest colours; and he was treated as one who, having sinned against light, was therefore deservedly left a prey to the Prince of Darkness.

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As the fated and influential hour rolled on, the terrors of the hateful Presence grew more confounding to the mortal senses of the victim, and the knot of the accursed sophistry became more inextricable in appearance, at least to the prey whom its meshes surrounded. He had not power to explain the assurance of pardon which he continued to assert, or to name the victorious name in which he trusted. But his faith did not abandon him, though he lacked for a time the power of expressing it. 'Say what you will,' was his answer to the Tempter; 'I know there is as much betwixt the two boards of this Book as can ensure me forgiveness for my transgressions and safety for my soul.' As he spoke, the clock, which announced the lapse of the fatal hour, was heard to strike. The speech and intellectual powers of the youth were instantly and fully restored; he burst forth into prayer, and expressed in the most glowing terms his reliance on the truth and on the Author of the Gospel. The Demon retired, yelling and discomfited, and the old man, entering the apartment, with tears congratulated his guest on his victory in the fated struggle.

The young man was afterwards married to the beautiful maiden, the first sight of whom had made such an impression on him, and they were consigned over at the close of the story to domestic happiness. So ended John MacKinlay's legend.

The Author of Waverley had imagined a possibility of framing an interesting, and perhaps not an unedifying, tale out of the incidents of the life of a doomed individual, whose efforts at good and virtuous conduct were to be for ever disappointed by the intervention, as it were, of some malevolent being, and who was at last to come off victorious from the fearful struggle. In short, something was meditated upon a plan resembling the imaginative tale of Sintram and his Companions, by Mons. le Baron de la Motte Fouque, although, if it then existed, the author had not seen it.

The scheme projected may be traced in the three or four first chapters of the work; but farther consideration induced the author to lay his purpose aside. It appeared, on mature consideration, that astrology, though its influence was once received and

admitted by Bacon himself, does not now retain influence over the general mind sufficient even to constitute the mainspring of a romance. Besides, it occurred that to do justice to such a subject would have required not only more talent than the Author could be conscious of possessing, but also involved doctrines and discussions of a nature too serious for his purpose and for the character of the narrative. In changing his plan, however, which was done in the course of printing, the early sheets retained the vestiges of the original tenor of the story, although they now hang upon it as an unnecessary and unnatural incumbrance. The cause of such vestiges occurring is now explained and apologised for.

It is here worthy of observation that, while the astrological doctrines have fallen into general contempt, and been supplanted by superstitions of a more gross and far less beautiful character, they have, even in modern days, retained some votaries.

One of the most remarkable believers in that forgotten and despised science was a late eminent professor of the art of legerdemain. One would have thought that a person of this description ought, from his knowledge of the thousand ways in which human eyes could be deceived, to have been less than others subject to the fantasies of superstition. Perhaps the habitual use of those abstruse calculations by which, in a manner surprising to the artist himself, many tricks upon cards, etc., are performed, induced this gentleman to study the combination of the stars and planets, with the expectation of obtaining prophetic communications.

He constructed a scheme of his own nativity, calculated according to such rules of art as he could collect from the best astrological authors. The result of the past he found agreeable to what had hitherto befallen him, but in the important prospect of the future a singular difficulty occurred. There were two years during the course of which he could by no means obtain any exact knowledge whether the subject of the scheme would be dead or alive. Anxious concerning so remarkable a circumstance, he gave the scheme to a brother astrologer, who was also baffled in the same manner. At one period he

found the native, or subject, was certainly alive; at another that he was unquestionably dead; but a space of two years extended between these two terms, during which he could find no certainty as to his death or existence.

The astrologer marked the remarkable circumstance in his diary, and continued his exhibitions in various parts of the empire until the period was about to expire during which his existence had been warranted as actually ascertained. At last, while he was exhibiting to a numerous audience his usual tricks of legerdemain, the hands whose activity had so often baffled the closest observer suddenly lost their power, the cards dropped from them, and he sunk down a disabled paralytic. In this state the artist languished for two years, when he was at length removed by death. It is said that the diary of this modern astrologer will soon be given to the public.

The fact, if truly reported, is one of those singular coincidences which occasionally appear, differing so widely from ordinary calculation, yet without which irregularities human life would not present to mortals, looking into futurity, the abyss of impenetrable darkness which it is the pleasure of the Creator it should offer to them. Were everything to happen in the ordinary train of events, the future would be subject to the rules of arithmetic, like the chances of gaming. But extraordinary events and wonderful runs of luck defy the calculations of mankind and throw impenetrable darkness on future contingencies.

To the above anecdote, another, still more recent, may be here added. The author was lately honoured with a letter from a gentleman deeply skilled in these mysteries, who kindly undertook to calculate the nativity of the writer of Guy Mannering, who might be supposed to be friendly to the divine art which he professed. But it was impossible to supply data for the construction of a horoscope, had the native been otherwise desirous of it, since all those who could supply the minutiae of day, hour, and minute have been long removed from the mortal sphere.

zaid n. adwan

Having thus given some account of the first idea, or rude sketch, of the story, which was soon departed from, the Author, in following out the plan of the present edition, has to mention the prototypes of the principal characters in Guy Mannering.

Some circumstances of local situation gave the Author in his youth an opportunity of seeing a little, and hearing a great deal, about that degraded class who are called gipsies; who are in most cases a mixed race between the ancient Egyptians who arrived in Europe about the beginning of the fifteenth century and vagrants of European descent.

The individual gipsy upon whom the character of Meg Merrilies was founded was well known about the middle of the last century by the name of Jean Gordon, an inhabitant of the village of Kirk Yetholm, in the Cheviot Hills, adjoining to the English Border. The Author gave the public some account of this remarkable person in one of the early numbers of Blackwood's Magazine, to the following purpose:--

'My father remembered old Jean Gordon of Yetholm, who had great sway among her tribe. She was quite a Meg Merrilies, and possessed the savage virtue of fidelity in the same perfection. Having been often hospitably received at the farmhouse of Lochside, near Yetholm, she had carefully abstained from committing any depredations on the farmer's property. But her sons (nine in number) had not, it seems, the same delicacy, and stole a brood-sow from their kind entertainer. Jean was mortified at this ungrateful conduct, and so much ashamed of it that she absented herself from Lochside for several years.

'It happened in course of time that, in consequence of some temporary pecuniary necessity, the goodman of Lochside was obliged to go to Newcastle to raise some money to pay his rent. He succeeded in his purpose, but, returning through the mountains of Cheviot, he was benighted and lost his way.

'A light glimmering through the window of a large waste barn, which had survived the farm-house to which it had once belonged, guided him to a place of shelter; and when he knocked at the door it was opened by Jean Gordon. Her very remarkable figure,

for she was nearly six feet high, and her equally remarkable features and dress, rendered it impossible to mistake her for a moment, though he had not seen her for years; and to meet with such a character in so solitary a place, and probably at no great distance from her clan, was a grievous surprise to the poor man, whose rent (to lose which would have been ruin) was about his person.

'Jean set up a loud shout of joyful recognition--

"Eh, sirs! the winsome gudeman of Lochside! Light down, light down; for ye maunna gang farther the night, and a friend's house sae near." The farmer was obliged to dismount and accept of the gipsy's offer of supper and a bed. There was plenty of meat in the barn, however it might be come by, and preparations were going on for a plentiful repast, which the farmer, to the great increase of his anxiety, observed was calculated for ten or twelve guests, of the same description, probably, with his landlady.

'Jean left him in no doubt on the subject. She brought to his recollection the story of the stolen sow, and mentioned how much pain and vexation it had given her. Like other philosophers, she remarked that the world grew worse daily; and, like other parents, that the bairns got out of her guiding, and neglected the old gipsy regulations, which commanded them to respect in their depredations the property of their benefactors. The end of all this was an inquiry what money the farmer had about him; and an urgent request, or command, that he would make her his purse-keeper, since the bairns, as she called her sons, would be soon home. The poor farmer made a virtue of necessity, told his story, and surrendered his gold to Jean's custody. She made him put a few shillings in his pocket, observing, it would excite suspicion should he be found travelling altogether penniless.

'This arrangement being made, the farmer lay down on a sort of shake-down, as the Scotch call it, or bed-clothes disposed upon some straw, but, as will easily be believed, slept not.

‘About midnight the gang returned, with various articles of plunder, and talked over their exploits in language which made the farmer tremble. They were not long in discovering they had a guest, and demanded of Jean whom she had got there.

‘“E’en the winsome gudeman of Lochside, poor body,” replied Jean; “he’s been at Newcastle seeking for siller to pay his rent, honest man, but deil-be-lickit he’s been able to gather in, and sae he’s gaun e’en hame wi’ a toom purse and a sair heart.”

‘“That may be, Jean,” replied one of the banditti, “but we maun ripe his pouches a bit, and see if the tale be true or no.” Jean set up her throat in exclamations against this breach of hospitality, but without producing any change in their determination. The farmer soon heard their stifled whispers and light steps by his bedside, and understood they were rummaging his clothes. When they found the money which the providence of Jean Gordon had made him retain, they held a consultation if they should take it or no; but the smallness of the booty, and the vehemence of Jean’s remonstrances, determined them in the negative. They caroused and went to rest. As soon as day dawned Jean roused her guest, produced his horse, which she had accommodated behind the hallan, and guided him for some miles, till he was on the highroad to Lochside. She then restored his whole property; nor could his earnest entreaties prevail on her to accept so much as a single guinea.

‘I have heard the old people at Jedburgh say, that all Jean’s sons were condemned to die there on the same day. It is said the jury were equally divided, but that a friend to justice, who had slept during the whole discussion, waked suddenly and gave his vote for condemnation in the emphatic words, “Hang them a’!” Unanimity is not required in a Scottish jury, so the verdict of guilty was returned. Jean was present, and only said, “The Lord help the innocent in a day like this!” Her own death was accompanied with circumstances of brutal outrage, of which poor Jean was in many respects wholly undeserving. She had, among other demerits, or merits, as the reader may choose to rank it, that of being a stanch Jacobite. She chanced to be at Carlisle upon a fair or

market-day, soon after the year 1746, where she gave vent to her political partiality, to the great offence of the rabble of that city. Being zealous in their loyalty when there was no danger, in proportion to the tameness with which they had surrendered to the Highlanders in 1745, the mob inflicted upon poor Jean Gordon no slighter penalty than that of ducking her to death in the Eden. It was an operation of some time, for Jean was a stout woman, and, struggling with her murderers, often got her head above water; and, while she had voice left, continued to exclaim at such intervals, "Charlie yet! Charlie yet!" When a child, and among the scenes which she frequented, I have often heard these stories, and cried piteously for poor Jean Gordon.

'Before quitting the Border gipsies, I may mention that my grandfather, while riding over Charterhouse Moor, then a very extensive common, fell suddenly among a large band of them, who were carousing in a hollow of the moor, surrounded by bushes. They instantly seized on his horse's bridle with many shouts of welcome, exclaiming (for he was well known to most of them) that they had often dined at his expense, and he must now stay and share their good cheer. My ancestor was, a little alarmed, for, like the goodman of Lochside, he had more money about his person than he cared to risk in such society. However, being naturally a bold, lively-spirited man, he entered into the humour of the thing and sate down to the feast, which consisted of all the varieties of game, poultry, pigs, and so forth that could be collected by a wide and indiscriminate system of plunder. The dinner was a very merry one; but my relative got a hint from some of the older gipsies to retire just when--

The mirth and fun grew fast and furious,

and, mounting his horse accordingly, he took a French leave of his entertainers, but without experiencing the least breach of hospitality. I believe Jean Gordon was at this festival.'[Footnote: Blackwood's Magazine, vol. I, p. 54]

Notwithstanding the failure of Jean's issue, for which

Weary fa' the waefu' wuddie,

a granddaughter survived her, whom I remember to have seen. That is, as Dr. Johnson had a shadowy recollection of Queen Anne as a stately lady in black, adorned with diamonds, so my memory is haunted by a solemn remembrance of a woman of more than female height, dressed in a long red cloak, who commenced acquaintance by giving me an apple, but whom, nevertheless, I looked on with as much awe as the future Doctor, High Church and Tory as he was doomed to be, could look upon the Queen. I conceive this woman to have been Madge Gordon, of whom an impressive account is given in the same article in which her mother Jean is mentioned, but not by the present writer:--

'The late Madge Gordon was at this time accounted the Queen of the Yetholm clans. She was, we believe, a granddaughter of the celebrated Jean Gordon, and was said to have much resembled her in appearance. The following account of her is extracted from the letter of a friend, who for many years enjoyed frequent and favourable opportunities of observing the characteristic peculiarities of the Yetholm tribes:--"Madge Gordon was descended from the Faas by the mother's side, and was married to a Young. She was a remarkable personage--of a very commanding presence and high stature, being nearly six feet high. She had a large aquiline nose, penetrating eyes, even in her old age, bushy hair, that hung around her shoulders from beneath a gipsy bonnet of straw, a short cloak of a peculiar fashion, and a long staff nearly as tall as herself. I remember her well; every week she paid my father a visit for her awmous when I was a little boy, and I looked upon Madge with no common degree of awe and terror. When she spoke vehemently (for she made loud complaints) she used to strike her staff upon the floor and throw herself into an attitude which it was impossible to regard with indifference. She used to say that she could bring from the remotest parts of the island friends to revenge her quarrel while she sat motionless in her cottage; and she frequently boasted that there was a time when she was of still more considerable importance, for there were at her wedding fifty saddled asses, and unsaddled asses without number. If Jean Gordon was the prototype of the CHARACTER of Meg Merrilies, I imagine Madge must have

sat to the unknown author as the representative of her PERSON.”’[Footnote: Blackwood’s Magazine, vol. I, p. 56.]

How far Blackwood’s ingenious correspondent was right, how far mistaken, in his conjecture the reader has been informed.

To pass to a character of a very different description, Dominie Sampson,--the reader may easily suppose that a poor modest humble scholar who has won his way through the classics, yet has fallen to leeward in the voyage of life, is no uncommon personage in a country where a certain portion of learning is easily attained by those who are willing to suffer hunger and thirst in exchange for acquiring Greek and Latin. But there is a far more exact prototype of the worthy Dominie, upon which is founded the part which he performs in the romance, and which, for certain particular reasons, must be expressed very generally.

Such a preceptor as Mr. Sampson is supposed to have been was actually tutor in the family of a gentleman of considerable property. The young lads, his pupils, grew up and went out in the world, but the tutor continued to reside in the family, no uncommon circumstance in Scotland in former days, where food and shelter were readily afforded to humble friends and dependents. The laird’s predecessors had been imprudent, he himself was passive and unfortunate. Death swept away his sons, whose success in life might have balanced his own bad luck and incapacity. Debts increased and funds diminished, until ruin came. The estate was sold; and the old man was about to remove from the house of his fathers to go he knew not whither, when, like an old piece of furniture, which, left alone in its wonted corner, may hold together for a long while, but breaks to pieces on an attempt to move it, he fell down on his own threshold under a paralytic affection.

The tutor awakened as from a dream. He saw his patron dead, and that his patron’s only remaining child, an elderly woman, now neither graceful nor beautiful, if she ever had been either the one or the other, had by this calamity become a homeless and

penniless orphan. He addressed her nearly in the words which Dominie Sampson uses to Miss Bertram, and professed his determination not to leave her. Accordingly, roused to the exercise of talents which had long slumbered, he opened a little school and supported his patron's child for the rest of her life, treating her with the same humble observance and devoted attention which he had used towards her in the days of her prosperity.

Such is the outline of Dominie Sampson's real story, in which there is neither romantic incident nor sentimental passion; but which, perhaps, from the rectitude and simplicity of character which it displays, may interest the heart and fill the eye of the reader as irresistibly as if it respected distresses of a more dignified or refined character.

These preliminary notices concerning the tale of Guy Mannering and some of the characters introduced may save the author and reader in the present instance the trouble of writing and perusing a long string of detached notes.

ABBOTSFORD, January, 1829.

ADDENDUM: I may add that the motto of this novel was taken from the Lay of the Last Minstrel, to evade the conclusions of those who began to think that, as the author of Waverley never quoted the works of Sir Walter Scott, he must have reason for doing so, and that the circumstances might argue an identity between them.

ABBOTSFORD, August 1, 1829.

Zaid n. adwan

ADDITIONAL NOTE

GALWEGIAN LOCALITIES AND PERSONAGES WHICH HAVE BEEN SUPPOSED TO BE ALLUDED TO IN THE NOVEL

An old English proverb says, that more know Tom Fool than Tom Fool knows; and the influence of the adage seems to extend to works composed under the influence of an idle or foolish planet. Many corresponding circumstances are detected by readers of which the Author did not suspect the existence. He must, however, regard it as a great compliment that, in detailing incidents purely imaginary, he has been so fortunate in approximating reality as to remind his readers of actual occurrences. It is therefore with pleasure he notices some pieces of local history and tradition which have been supposed to coincide with the fictitious persons, incidents, and scenery of Guy Mannering.

The prototype of Dirk Hatteraick is considered as having been a Dutch skipper called Yawkins. This man was well known on the coast of Galloway and Dumfriesshire, as sole proprietor and master of a buckkar, or smuggling lugger, called the 'Black Prince.' Being distinguished by his nautical skill and intrepidity, his vessel was frequently freighted, and his own services employed, by French, Dutch, Manx, and Scottish smuggling companies.

A person well known by the name of Buckkar-tea, from having been a noted smuggler of that article, and also by that of Bogle Bush, the place of his residence, assured my kind informant Mr. Train, that he had frequently seen upwards of two hundred Lingtow

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men assemble at one time, and go off into the interior of the country, fully laden with contraband goods.

In those halcyon days of the free trade, the fixed price for carrying a box of tea or bale of tobacco from the coast of Galloway to Edinburgh was fifteen shillings, and a man with two horses carried four such packages. The trade was entirely destroyed by Mr. Pitt's celebrated commutation law, which, by reducing the duties upon excisable articles, enabled the lawful dealer to compete with the smuggler. The statute was called in Galloway and Dumfries-shire, by those who had thriven upon the contraband trade, 'the burning and starving act.'

Sure of such active assistance on shore, Yawkins demeaned himself so boldly that his mere name was a terror to the officers of the revenue. He availed himself of the fears which his presence inspired on one particular night, when, happening to be ashore with a considerable quantity of goods in his sole custody, a strong party of excisemen came down on him. Far from shunning the attack, Yawkins sprung forward, shouting, 'Come on, my lads; Yawkins is before you.' The revenue officers were intimidated and relinquished their prize, though defended only by the courage and address of a single man. On his proper element Yawkins was equally successful. On one occasion he was landing his cargo at the Manxman's Lake near Kirkcudbright, when two revenue cutters (the 'Pigmy' and the 'Dwarf') hove in sight at once on different tacks, the one coming round by the Isles of Fleet, the other between the point of Rueberry and the Muckle Ron. The dauntless freetrader instantly weighed anchor and bore down right between the luggers, so close that he tossed his hat on the deck of the one and his wig on that of the other, hoisted a cask to his maintop, to show his occupation, and bore away under an extraordinary pressure of canvass, without receiving injury. To account for these and other hairbreadth escapes, popular superstition alleged that Yawkins insured his celebrated buckkar by compounding with the devil for one-tenth of his crew every voyage. How they arranged the separation of the stock and tithes is left to our

conjecture. The buckkar was perhaps called the ‘Black Prince’ in honour of the formidable insurer.

The ‘Black Prince’ used to discharge her cargo at Luce, Balcarry, and elsewhere on the coast; but her owner’s favourite landing-places were at the entrance of the Dee and the Cree, near the old Castle of Rueberry, about six miles below Kirkcudbright. There is a cave of large dimensions in the vicinity of Rueberry, which, from its being frequently used by Yawkins and his supposed connexion with the smugglers on the shore, is now called Dirk Hatteraick’s Cave. Strangers who visit this place, the scenery of which is highly romantic, are also shown, under the name of the Gauger’s Loup, a tremendous precipice, being the same, it is asserted, from which Kennedy was precipitated.

Meg Merrilies is in Galloway considered as having had her origin in the traditions concerning the celebrated Flora Marshal, one of the royal consorts of Willie Marshal, more commonly called the Caird of Barullion, King of the Gipsies of the Western Lowlands. That potentate was himself deserving of notice from the following peculiarities:--He was born in the parish of Kirkmichael about the year 1671; and, as he died at Kirkcudbright 23d November 1792, he must then have been in the one hundred and twentieth year of his age. It cannot be said that this unusually long lease of existence was noted by any peculiar excellence of conduct or habits of life. Willie had been pressed or enlisted in the army seven times, and had deserted as often; besides three times running away from the naval service. He had been seventeen times lawfully married; and, besides, such a reasonably large share of matrimonial comforts, was, after his hundredth year, the avowed father of four children by less legitimate affections. He subsisted in his extreme old age by a pension from the present Earl of Selkirk’s grandfather. Will Marshal is buried in Kirkcudbright church, where his monument is still shown, decorated with a scutcheon suitably blazoned with two tups’ horns and two cutty spoons.

In his youth he occasionally took an evening walk on the highway, with the purpose of assisting travellers by relieving them of the weight of their purses. On one occasion the Caird of Barullion robbed the Laird of Bargally at a place between Carsphairn and Dalmellington. His purpose was not achieved without a severe struggle, in which the gipsy lost his bonnet, and was obliged to escape, leaving it on the road. A respectable farmer happened to be the next passenger, and, seeing the bonnet, alighted, took it up, and rather imprudently put it on his own head. At this instant Bargally came up with some assistants, and, recognising the bonnet, charged the farmer of Bantoberick with having robbed him, and took him into custody. There being some likeness between the parties, Bargally persisted in his charge, and, though the respectability of the farmer's character was proved or admitted, his trial before the Circuit Court came on accordingly. The fatal bonnet lay on the table of the court. Bargally swore that it was the identical article worn by the man who robbed him; and he and others likewise deponed that they had found the accused on the spot where the crime was committed, with the bonnet on his head. The case looked gloomily for the prisoner, and the opinion of the judge seemed unfavourable. But there was a person in court who knew well both who did and who did not commit the crime. This was the Caird of Barullion, who, thrusting himself up to the bar near the place where Bargally was standing, suddenly seized on the bonnet, put it on his head, and, looking the Laird full in the face, asked him, with a voice which attracted the attention of the court and crowded audience--'Look at me, sir, and tell me, by the oath you have sworn--Am not _I_ the man who robbed you between Carsphairn and Dalmellington?' Bargally replied, in great astonishment, 'By Heaven! you are the very man.' 'You see what sort of memory this gentleman has,' said the volunteer pleader; 'he swears to the bonnet whatever features are under it. If you yourself, my Lord, will put it on your head, he will be willing to swear that your Lordship was the party who robbed him between Carsphairn and Dalmellington.' The tenant of Bantoberick was unanimously acquitted; and thus Willie Marshal ingeniously contrived to save an innocent man from danger, without incurring

any himself, since Bargally's evidence must have seemed to every one too fluctuating to be relied upon.

While the King of the Gipsies was thus laudably occupied, his royal consort, Flora, contrived, it is said, to steal the hood from the judge's gown; for which offence, combined with her presumptive guilt as a gipsy, she was banished to New England, whence she never returned.

Now, I cannot grant that the idea of Meg Merrilies was, in the first concoction of the character, derived from Flora Marshal, seeing I have already said she was identified with Jean Gordon, and as I have not the Laird of Bargally's apology for charging the same fact on two several individuals. Yet I am quite content that Meg should be considered as a representative of her sect and class in general, Flora as well as others.

The other instances in which my Gallovidian readers have obliged me by assigning to

Airy nothing
A local habitation and a name,

shall also be sanctioned so far as the Author may be entitled to do so. I think the facetious Joe Miller records a case pretty much in point; where the keeper of a museum, while showing, as he said, the very sword with which Balaam was about to kill his ass, was interrupted by one of the visitors, who reminded him that Balaam was not possessed of a sword, but only wished for one. 'True, sir,' replied the ready-witted cicerone; 'but this is the very sword he wished for.' The Author, in application of this story, has only to add that, though ignorant of the coincidence between the fictions of the tale and some real circumstances, he is contented to believe he must unconsciously have thought or dreamed of the last while engaged in the composition of Guy Mannering.

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EDITOR'S INTRODUCTION

TO

GUY MANNERING.

The second essay in fiction of an author who has triumphed in his first romance is a doubtful and perilous adventure. The writer is apt to become self-conscious, to remember the advice of his critics,--a fatal error,--and to tremble before the shadow of his own success. He knows that he will have many enemies, that hundreds of people will be ready to find fault and to vow that he is "written out." Scott was not unacquainted with these apprehensions. After publishing "Marmion" he wrote thus to Lady Abercorn:--

"No one acquires a certain degree of popularity without exciting an equal degree of malevolence among those who, either from rivalship or from the mere wish to pull down what others have set up, are always ready to catch the first occasion to lower the favoured individual to what they call his 'real standard.' Of this I have enough of experience, and my political interferences, however useless to my friends, have not failed to make me more than the usual number of enemies. I am therefore bound, in justice to myself and to those whose good opinion has hitherto protected me, not to peril myself too frequently. The naturalists tell us that if you destroy the web which the spider has just made, the insect must spend many days in inactivity till he has assembled within his person the materials necessary to weave another. Now, after writing a work of imagination one feels in nearly the same exhausted state

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as the spider. I believe no man now alive writes more rapidly than I do (no great recommendation); but I never think of making verses till I have a sufficient stock of poetical ideas to supply them,--I would as soon join the Israelites in Egypt in their heavy task of making bricks without clay. Besides, I know, as a small farmer, that good husbandry consists in not taking the same crop too frequently from the same soil; and as turnips come after wheat, according to the best rules of agriculture, I take it that an edition of Swift will do well after such a scourging crop as 'Marmiou.'"

[March 13, 1808. Copied from the Collection of Lady Napier and Ettrick.]

These fears of the brave, then, were not unfamiliar to Scott; but he audaciously disregarded all of them in the composition of "Guy Mannering." He had just spun his web, like the spider of his simile, he had just taken off his intellectual fields the "scourging crop" of "The Lord of the Isles," he had just received the discouraging news of its comparative failure, when he "buckled to," achieved "Guy Mannering" in six weeks, and published it. Moliere tells us that he wrote "Les Facheux" in a fortnight; and a French critic adds that it reads indeed as if it had been written in, a fortnight. Perhaps a self-confident censor might venture a similar opinion about "Guy Mannering." It assuredly shows traces of haste; the plot wanders at its own will; and we may believe that the Author often--did not see his own way out of the wood. But there is little harm in that. "If I do not know what is coming next," a modern novelist has remarked, "how can the public know?" Curiosity, at least, is likely to be excited by this happy-go-lucky manner of Scott's. "The worst of it is;" as he wrote to Lady Abercorn about his poems (June 9,1808), "that I am not very good or patient in slow and careful composition; and sometimes I remind myself of the drunken man, who could run long after he could not walk." Scott could certainly run very well, though averse to a plodding motion.

[He was probably thinking of a famous Edinburgh character, "Singing Jamie Balfour." Jamie was found very drunk and adhering to the pavement one night. He could not raise himself; but when helped to his feet, ran his preserver a race to the tavern, and won!]

The account of the year's work which preceded "Guy Mannering" is given by Lockhart, and is astounding. In 1814 Scott had written, Lockhart believes, the greater

part of the “Life of Swift,” most of “Waverley” and the “Lord of the Isles;” he had furnished essays to the “Encyclopaedia,” and had edited “The Memorie of the Somervilles.” The spider might well seem spun out, the tilth exhausted. But Scott had a fertility, a spontaneity, of fancy equalled only, if equalled at all, by Alexandre Dumas.

On November 7 of this laborious year, 1814, Scott was writing to Mr. Joseph Train, thanking him for a parcel of legendary lore, including the Galloway tale of the wandering astrologer and a budget of gypsy traditions. Falling in the rich soil of Scott’s imagination, the tale of the astrologer yielded a name and an opening to “Guy Mannering,” while the gypsy lore blossomed into the legend of Meg Merrilies. The seed of the novel was now sown. But between November 11 and December 25 Scott was writing the three last cantos of the “Lord of the Isles.” Yet before the “Lord of the Isles” was published (Jan. 18, 1815), two volumes of “Guy Mannering” were in print (Letter to Morritt, Jan. 17, 1815.) The novel was issued on Feb. 14, 1815. Scott, as he says somewhere, was like the turnspit dog, into whose wheel a hot cinder is dropped to encourage his activity. Scott needed hot cinders in the shape of proof-sheets fresh from the press, and he worked most busily when the printer’s devil was waiting. In this case, not only the printer’s devil, but the wolf was at the door. The affairs of the Ballantynes clamoured for moneys In their necessity and his own, Scott wrote at the rate of a volume in ten days, and for some financial reason published “Guy Mannering” with Messrs. Longmans, not with Constable. Scott was at this moment facing creditors and difficulties as Napoleon faced the armies of the Allies,--present everywhere, everywhere daring and successful. True, his “Lord of the Isles” was a disappointment, as James Ballantyne informed him. “‘Well, James, so be it; but you know we must not droop, for we cannot afford to give over. Since one line has failed, we must just stick to something else.’ And so he dismissed me, and resumed his novel.”

In these circumstances, far from inspiring, was “Guy Mannering” written and hurried through the press. The story has its own history: one can watch the various

reminiscences and experiences of life that crystallized together in Scott's mind, and grouped themselves fantastically into his unpremeditated plot. Sir Walter gives, in the preface of 1829, the legend which he heard from John MacKinlay, his father's Highland servant, and on which he meant to found a tale more in Hawthorn's manner than in his own. That plan he changed in the course of printing, "leaving only just enough of astrology to annoy pedantic reviewers and foolish Puritans." Whence came the rest of the plot,--the tale of the long-lost heir, and so on? The true heir, "kept out of his own," and returning in disguise, has been a favourite character ever since Homer sang of Odysseus, and probably long before that. But it is just possible that Scott had a certain modern instance in his mind. In turning over the old manuscript diary at Branxholme Park (mentioned in a note to "Waverley"), the Editor lighted on a singular tale, which, in the diarist's opinion, might have suggested "Guy Mannering" to Sir Walter. The resemblance between the story of Vanbeest Brown and the hero of the diarist was scanty; but in a long letter of Scott's to Lady Abercorn (May 21, 1813), a the Editor finds Sir Walter telling his correspondent the very narrative recorded in the Branxholme Park diary. Singular things happen, Sir Walter says; and he goes on to describe a case just heard in the court where he is sitting as Clerk of Sessions. Briefly, the anecdote is this: A certain Mr. Carruthers of Dormont had reason to suspect his wife's fidelity. While proceedings for a divorce were pending, Mrs. Carruthers bore a daughter, of whom her husband, of course, was legally the father. But he did not believe in the relationship, and sent the infant girl to be brought up, in ignorance of her origin and in seclusion, among the Cheviot Hills. Here she somehow learned the facts of her own story. She married a Mr. Routledge, the son of a yeoman, and "compounded" her rights (but not those of her issue) for a small sung of ready money, paid by old Dormont. She bears a boy; then she and her husband died in poverty. Their son was sent by a friend to the East Indies, and was presented with a packet of papers, which he left unopened at a lawyer's. The young man made a fortune in India, returned to Scotland, and took a shooting in Dumfriesshire, near bormont, his ancestral home. He lodged at a small inn

hard by, and the landlady, struck by his name, began to gossip with him about his family history. He knew nothing of the facts which the landlady disclosed, but, impressed by her story, sent for and examined his neglected packet of papers. Then he sought legal opinion, and was advised, by President Blair, that he had a claim worth presenting on the estate of Dormont. "The first decision of the cause," writes Scott, "was favourable." The true heir celebrated his legal victory by a dinner-party, and his friends saluted him as "Dormont." Next morning he was found dead. Such is the true tale. As it occupied Scott's mind in 1813, and as he wrote "Guy Mannering" in 1814-15, it is not impossible that he may have borrowed his wandering heir, who returns by pure accident to his paternal domains, and there learns his origin at a woman's lips, from the Dormont case. The resemblance of the stories, at least, was close enough to strike a shrewd observer some seventy years ago.

Another possible source of the plot--a more romantic origin, certainly--is suggested by Mr. Robert Chambers in "Illustrations of the Author of 'Waverley.'" A Maxwell of Glenormiston, "a religious and bigoted recluse," sent his only son and heir to a Jesuit College in Flanders, left his estate in his brother's management, and died. The wicked uncle alleged that the heir was also dead. The child, ignorant of his birth, grew up, ran away from the Jesuits at the age of sixteen, enlisted in the French army, fought at Fontenoy, got his colours, and, later, landed in the Moray Firth as a French officer in 1745. He went through the campaign, was in hiding in Lochaber after Drumossie, and in making for a Galloway port, was seized, and imprisoned in Dumfries. Here an old woman of his father's household recognized him by "a mark which she remembered on his body." His cause was taken up by friends; but the usurping uncle died, and Sir Robert Maxwell recovered his estates without a lawsuit. This anecdote is quoted from the "New Monthly Magazine," June, 1819. There is nothing to prove that Scott was acquainted with this adventure. Scott's own experience, as usual, supplied him with hints for his characters. The phrase of Dominie Sampson's father, "Please God, my bairn may live to wag his pow in a pulpit," was uttered in his own hearing. There was

a Bluegown, or Bedesman, like Edie Ochiltree, who had a son at Edinburgh College. Scott was kind to the son, the Bluegown asked him to dinner, and at this meal the old man made the remark about the pulpit and the pow.' A similar tale is told by Scott in the Introduction to "The Antiquary" (1830). As for the good Dominie, Scott remarks that, for "certain particular reasons," he must say what he has to say about his prototype "very generally." Mr. Chambers' finds the prototype in a Mr. James Sanson, tutor in the house of Mr. Thomas Scott, Sir Walter's uncle. It seems very unlike Sir Walter to mention this excellent man almost by his name, and the tale about his devotion to his patron's daughter cannot, apparently, be true of Mr. James Sanson. The prototype of Pleydell, according to Sir Walter himself (Journal, June 19, 1830), was "my old friend Adam Rolland, Esq., in external circumstances, but not in frolic or fancy." Mr. Chambers, however, finds the original in Mr. Andrew Crosbie, an advocate of great talents, who frolicked to ruin, and died in 1785. Scott may have heard tales of this patron of "High Jinks," but cannot have known him much personally. Dandie Dinmont is simply the typical Border farmer. Mr. Shortreed, Scott's companion in his Liddesdale raids, thought that Willie Elliot, in Millburnholm, was the great original. Scott did not meet Mr. James Davidson in Hindlee, owner of all the Mustards and Peppers, till some years after the novel was written. "Guy Mannering," when read to him, sent Mr. Davidson to sleep. "The kind and manly character of Dandie, the gentle and delicious one of his wife," and the circumstances of their home, were suggested, Lockhart thinks, by Scott's friend, steward, and amanuensis, Mr. William Laidlaw, by Mrs. Laidlaw, and by their farm among the braes of Yarrow. In truth, the Border was peopled then by Dandies and Ailies: nor is the race even now extinct in Liddesdale and Teviotdale, in Ettrick and Yarrow. As for Mustard and Pepper, their offspring too is powerful in the land, and is the deadly foe of vermin. The curious may consult Mr. Cook's work on "The Dandie Dinmont Terrier." The Duke of Buccleugh's breed still resembles the fine example painted by Gainsborough in his portrait of the duke (of Scott's time). "Tod Gabbie," again, as Lockhart says, was studied from Tod Willie, the huntsman of the

hills above Loch Skene. As for the Galloway scenery, Scott did not know it well, having only visited "the Kingdom" in 1793, when he was defending the too frolicsome Mr. McNaught, Minister of Girthon. The beautiful and lonely wilds of the Glenkens, in central Galloway, where traditions yet linger, were, unluckily, terra incognita to Scott. A Galloway story of a murder and its detection by the prints of the assassin's boots inspired the scene where Dirk Hatteraick is traced by similar means. In Colonel Mannering, by the way, the Ettrick Shepherd recognized "Walter Scott, painted by himself."

The reception of "Guy Mannering" was all that could be wished. William Erskine and Ballantyne were "of opinion that it is much more interesting than 'Waverley.'" Mr. Morritt (March, 1815) pronounced himself to be "quite charmed with Dandie, Meg Merrilies, and Dirk Hatteraick,--characters as original as true to nature, and as forcibly conceived as, I had almost said, could have been drawn by Shakspeare himself." The public were not less appreciative. Two thousand copies, at a guinea, were sold the day after publication, and three thousand more were disposed of in three months. The professional critics acted just as Scott, speaking in general terms, had prophesied that they would. Let us quote the "British Critic" (1815).

"There are few spectacles in the literary world more lamentable than to view a successful author, in his second appearance before the public, limping lamely after himself, and treading tediously and awkwardly in the very same round, which, in his first effort, he had traced with vivacity and applause. We would not be harsh enough to say that the Author of 'Waverley' is in this predicament, but we are most unwillingly compelled to assert that the second effort falls far below the standard of the first. In 'Waverley' there was brilliancy of genius.... In 'Guy Mannering' there is little else beyond the wild sallies of an original genius, the bold and irregular efforts of a powerful but an exhausted mind. Time enough has not been allowed him to recruit his resources, both of anecdote and wit; but, encouraged by the credit so justly, bestowed upon one of then most finished portraits ever presented to the world, he has followed up the exhibition with a careless and hurried sketch, which betrays at once the weakness and the strength of its author.

"The character of Dirk Hatteraick is a faithful copy from nature,--it is one of those moral monsters which make us almost ashamed of our kind. Still, amidst the ruffian and murderous brutality of the smuggler, some few feelings of our common nature are thrown in with no less ingenuity than truth. . . . The remainder of the personages are very little above the cast of a common lively novel. . . . The Edinburgh lawyer is perhaps the most original portrait; nor are the saturnalia of the Saturday evenings described without humour. The Dominie is overdrawn and inconsistent; while the young ladies present nothing above par. . . .

"There are parts of this novel which none but one endowed with the sublimity of genius could have dictated; there are others which any ordinary character cobbler might as easily have stitched together. There are sparks both of pathos and of humour, even in the dullest parts, which could be elicited from none but the Author of 'Waverley.' . . . If, indeed, we have spoken in a manner derogatory to this, his later effort, our censure arises only from its comparison with the former. . .

"We cannot, however, conclude this article without remarking the absurd influence which our Author unquestionably attributes to the calculations of judicial astrology. No power of chance alone could have fulfilled the joint predictions both of Guy Mannering and Meg Merrilies; we cannot suppose that the Author can be endowed with sufficient folly to believe in the influence of planetary conjunctions himself, nor to have so miserable an idea of the understanding of his readers as to suppose them capable of a similar belief. We must also remember that the time of this novel is not in the dark ages, but scarcely forty years since; no aid, therefore, can be derived from the general tendency of popular superstition. What the clew may be to this apparent absurdity, we cannot imagine; whether the Author be in jest or earnest we do not know, and we are willing to suppose in this dilemma that he does not know himself."

The "Monthly Review" sorrowed, like the "British," over the encouragement given to the follies of astrology. The "Critical Review" "must lament that 'Guy Mannering' is too often written in language unintelligible to all except the Scotch." The "Critical Monthly" also had scruples about morality. The novel "advocates duelling, encourages a taste for peeping into the future,--a taste by far too prevalent,--and it is not over nice on religious subjects!"

The "Quarterly Review" distinguished itself by stupidity, if not by spite. "The language of 'Guy Mannering,' though characteristic, is mean; the state of society,

though peculiar, is vulgar. Meg Merrilies is swelled into a very unnatural importance." The speech of Meg Merrilies to Ellangowan is "one of the few which affords an intelligible extract." The Author "does not even scruple to overturn the laws of Nature"--because Colonel Mannering resides in the neighbourhood of Ellangowan! "The Author either gravely believes what no other man alive believes, or he has, of malice prepense, committed so great an offence against good taste as to build his story on what he must know to be a contemptible absurdity. . . . The greater part of the characters, their manners and dialect, are at once barbarous and vulgar, extravagant and mean. . . . The work would be, on the whole, improved by being translated into English. Though we cannot, on the whole, speak of the novel with approbation, we will not affect to deny that we read it with interest, and that it repaid us with amusement."

It is in reviewing "The Antiquary" that the immortal idiot of the "Quarterly" complains about "the dark dialect of Anglified Erse." Published criticism never greatly affected Scott's spirits,--probably, he very seldom read it. He knew that the public, like Constable's friend Mrs. Stewart, were "reading 'Guy Mannering' all day, and dreaming of it all night."

Indeed, it is much better to read "Guy Mannering" than to criticise it. A book written in six weeks, a book whose whole plot and conception was changed "in the printing," must have its faults of construction. Thus, we meet Mannering first as "a youthful lover," a wanderer at adventure, an amateur astrologer, and suddenly we lose sight of him, and only recover him as a disappointed, "disilluded," and weary, though still vigorous, veteran. This is the inevitable result of a novel based on a prediction. Either you have to leap some twenty years just when you are becoming familiar with the persons, or you have to begin in the midst of the events foreseen, and then make a tedious return to explain the prophecy. Again, it was necessary for Scott to sacrifice Frank Kennedy, who is rather a taking adventurer, like Bothwell in "Old Mortality." Readers regret the necessity which kills Kennedy. The whole fortunes of Vanbeest

Brown, his duel with the colonel, and his fortunate appearance in the nick of time, seem too rich in coincidences: still, as the Dormont case and the Ormiston case have shown, coincidences as unlooked for do occur. A fastidious critic has found fault with Brown's flageolet. It is a modest instrument; but what was he to play upon,--a lute, a concertina, a barrel-organ?

The characters of the young ladies have not always been applauded. Taste, in the matter of heroines, varies greatly; Sir Walter had no high opinion of his own skill in delineating them. But Julia Mannering is probably a masterly picture of a girl of that age,--a girl with some silliness and more gaiety, with wit, love of banter, and, in the last resort, sense and good feeling. She is particularly good when, in fear and trembling, she teases her imposing father.

"I expect," says Colonel Mannering, "that you will pay to this young lady that attention which is due to misfortune and virtue." "Certainly, sir. Is my future friend red-haired?" Miss Mannering is very capable of listening to Brown's flageolet from the balcony, but not of accompanying Brown, should he desire it, in the boat. As for Brown himself, he is one of Sir Walter's usual young men,--"brave, handsome, not too clever,"--the despair of their humorous creator. "Once you come to forty year," as Thackeray sings, "then you'll know that a lad is an ass;" and Scott had come to that age, and perhaps entertained that theory of a jeune premier when he wrote "Guy Mannering." In that novel, as always, he was most himself when dealing either with homely Scottish characters of everyday life, with exaggerated types of humorous absurdity, and with wildly adventurous banditti, who appealed to the old strain of the Border reiver in his blood. The wandering plot of "Guy Mannering" enabled him to introduce examples of all these sorts. The good-humoured, dull, dawdling Ellangowan, a laird half dwindled to a yeoman, is a sketch absolutely accurate, and wonderfully touched with pathos. The landladies, Mrs. MacCandlish and Tib Mumps, are little masterpieces; so is Mac-Morlan, the foil to Glossin; and so is Pleydell, allowing for the manner of the age.

Glossin himself is best when least villanous. Sir Robert Hazlewood is hardly a success. But as to Jock Jabos, a Southern Scot may say that he knows Jock Jabos in the flesh, so persistent is the type of that charioteer. It is partly Scott's good fortune, partly it is his evil luck, to be so inimitably and intimately true in his pictures of Scottish character. This wins the heart of his countrymen, indeed; but the stranger can never know how good Scott really is, any more than a Frenchman can appreciate Falstaff. Thus the alien may be vexed by what he thinks the mere clannish enthusiasm of praise, in Scott's countrymen. Every little sketch of a passing face is exquisite in Scott's work, when he is at his best. For example, Dandie Dinmont's children are only indicated "with a dusty roll of the brush;" but we recognize at once the large, shy, kindly families of the Border. Dandie himself, as the "Edinburgh Review" said (1817), "is beyond all question the best rustic portrait that has ever yet been exhibited to the public,--the most honourable to rustics, and the most creditable to the heart as well as to the genius of the Author, the truest to nature, the most complete in all its lineaments." Dandie is always delightful,--whether at Mumps's Hall, or on the lonely moor, or at home in Charlieshope, or hunting, or leistering fish, or entering terriers at vermin, or fighting, or going to law, or listening to the reading of a disappointing will, or entertaining the orphan whom others neglect; always delightful he is, always generous, always true, always the Border farmer. There is no better stock of men, none less devastated by "the modern spirit." His wife is worthy of him, and has that singular gentleness, kindliness, and dignity which prevail on the Border, even in households far less prosperous than that of Dandie Dinmont.--[Dr. John Brown's Ailie, in "Rab and his Friends," will naturally occur to the mind of every reader.]

Among Scott's "character parts," or types broadly humorous, few have been more popular than Dominie Sampson. His ungainly goodness, unwieldy strength, and inaccessible learning have made great sport, especially when "Guy Mannering" was "Terryfied" for the stage.

As Miss Bertram remarks in that singular piece,--where even Jock Jabos "wins till his English," like Elspeth in the Antiquary,--the Dominie "rather forces a tear from the eye of sentiment than a laugh from the lungs of ribaldry." In the play, however, he sits down to read a folio on some bandboxes, which, very naturally, "give way under him." As he has just asked Mrs. Mac-Candlish after the health of both her husbands, who are both dead, the lungs of ribaldry are more exercised than the fine eye of sentiment. We scarcely care to see our Dominie treated thus. His creator had the very lowest opinion of the modern playwright's craft, and probably held that stage humour could not be too palpable and practical. Lockhart writes (v. 130): "What share the novelist himself had in this first specimen of what he used to call 'the art of Terryfying' I cannot exactly say; but his correspondence shows that the pretty song of the 'Lullaby' was not his only contribution to it; and I infer that he had taken the trouble to modify the plot and rearrange for stage purposes a considerable part of the original dialogue." Friends of the Dominie may be glad to know, perhaps on Scott's own testimony, that he was an alumnus of St. Andrews. "I was boarded for twenty pence a week at Luckie Sour-kail's, in the High Street of St. Andrews." He was also fortunate enough to hold a bursary in St. Leonard's College, which, however, is a blunder. St. Leonard's and St. Salvator's had already been merged in the United College (1747). All this is in direct contradiction to the evidence in the novel, which makes the Dominie a Glasgow man. Yet the change seems to be due to Scott rather than to Terry. It is certain that Colonel Mannering would not have approved of the treatment which the Dominie undergoes, in a play whereof the plot and conduct fall little short of the unintelligible.

Against the character of Pleydell "a few murmurs of pedantic criticism," as Lockhart says, were uttered, and it was natural that Pleydell should seem an incredible character to English readers. But there is plenty of evidence that his "High Jinks" were not exaggerated.

There remains the heroine of the novel, as Mr. Ruskin not incorrectly calls her, Meg Merrilies, the sybil who so captivated the imagination of Keats. Among Scott's many weird women, she is the most romantic, with her loyal heart and that fiery natural eloquence which, as Scott truly observed, does exist ready for moments of passion, even among the reticent Lowlanders. The child of a mysterious wandering race, Meg has a double claim to utter such speeches as she addresses to Ellangowan after the eviction of her tribe. Her death, as Mr. Ruskin says, is "self-devoted, heroic in the highest, and happy." The devotion of Meg Merrilies, the grandeur of her figure, the music of her songs, more than redeem the character of Dirk Hatteraick, even if we hold, with the "Edinburgh" reviewer, that he is "a vulgar bandit of the German school," just as the insipidity and flageolet of the hero are redeemed by the ballad sung in the moment of recognition.

"Are these the Links of Forth, she said,
Or are they the crooks of Dee,
Or the bonnie woods of Warroch Head,
That I so fain would see?"

"Guy Mannering," according to Lockhart, was "pronounced by acclamation fully worthy to share the honours of 'Waverley.'" One star differeth from another in glory, and "Guy Mannering" has neither that vivid picture of clannish manners nor that noble melancholy of a gallant and forlorn endeavour of the Lost Cause,

"When all was done that man may do,
And all was done in vain,"

which give dignity to "Waverley." Yet, with Lockhart, we may admire, in "Guy Mannering," "the rapid, ever-heightening interest of the narrative, the unaffected kindliness of feeling, the manly purity of thought, everywhere mingled with a gentle humour and homely sagacity, but, above all, the rich variety and skilful contrast of character and manners, at once fresh in fiction and stamped with the unforgeable seal of truth and nature."

ANDREW LANG.

GUY MANNERING

OR

THE ASTROLOGER

CHAPTER I

He could not deny that, looking round upon the dreary region,
and seeing nothing but bleak fields and naked trees, hills
obscured by fogs, and flats covered with inundations, he did
for some time suffer melancholy to prevail upon him, and
wished himself again safe at home.

--'Travels of Will. Marvel,' IDLER, No. 49.

It was in the beginning of the month of November 17--when a young English gentleman, who had just left the university of Oxford, made use of the liberty afforded him to visit some parts of the north of England; and curiosity extended his tour into the adjacent frontier of the sister country. He had visited, on the day that opens our history, some monastic ruins in the county of Dumfries, and spent much of the day in making

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drawings of them from different points, so that, on mounting his horse to resume his journey, the brief and gloomy twilight of the season had already commenced. His way lay through a wide tract of black moss, extending for miles on each side and before him. Little eminences arose like islands on its surface, bearing here and there patches of corn, which even at this season was green, and sometimes a hut or farm-house, shaded by a willow or two and surrounded by large elder-bushes. These insulated dwellings communicated with each other by winding passages through the moss, impassable by any but the natives themselves. The public road, however, was tolerably well made and safe, so that the prospect of being benighted brought with it no real danger. Still it is uncomfortable to travel alone and in the dark through an unknown country; and there are few ordinary occasions upon which Fancy frets herself so much as in a situation like that of Mannering.

As the light grew faint and more faint, and the morass appeared blacker and blacker, our traveller questioned more closely each chance passenger on his distance from the village of Kippletringan, where he proposed to quarter for the night. His queries were usually answered by a counter-challenge respecting the place from whence he came. While sufficient daylight remained to show the dress and appearance of a gentleman, these cross interrogatories were usually put in the form of a case supposed, as, 'Ye'll hae been at the auld abbey o' Halycross, sir? there's mony English gentlemen gang to see that.'--Or, 'Your honour will become frae the house o' Pouderloupat?' But when the voice of the querist alone was distinguishable, the response usually was, 'Where are ye coming frae at sic a time o' night as the like o' this?'--or, 'Ye'll no be o' this country, freend?' The answers, when obtained, were neither very reconcilable to each other nor accurate in the information which they afforded. Kippletringan was distant at first 'a gey bit'; then the 'gey bit' was more accurately described as 'ablins three mile'; then the 'three mile' diminished into 'like a mile and a bittock'; then extended themselves into 'four mile or thereawa'; and, lastly, a female voice, having hushed a wailing infant which the spokeswoman carried in her arms, assured Guy Mannering, 'It was a weary

lang gate yet to Kippletringan, and unco heavy road for foot passengers.' The poor hack upon which Mannering was mounted was probably of opinion that it suited him as ill as the female respondent; for he began to flag very much, answered each application of the spur with a groan, and stumbled at every stone (and they were not few) which lay in his road.

Mannering now grew impatient. He was occasionally betrayed into a deceitful hope that the end of his journey was near by the apparition of a twinkling light or two; but, as he came up, he was disappointed to find that the gleams proceeded from some of those farm-houses which occasionally ornamented the surface of the extensive bog. At length, to complete his perplexity, he arrived at a place where the road divided into two. If there had been light to consult the relics of a finger-post which stood there, it would have been of little avail, as, according to the good custom of North Britain, the inscription had been defaced shortly after its erection. Our adventurer was therefore compelled, like a knight-errant of old, to trust to the sagacity of his horse, which, without any demur, chose the left-hand path, and seemed to proceed at a somewhat livelier pace than before, affording thereby a hope that he knew he was drawing near to his quarters for the evening. This hope, however, was not speedily accomplished, and Mannering, whose impatience made every furlong seem three, began to think that Kippletringan was actually retreating before him in proportion to his advance.

It was now very cloudy, although the stars from time to time shed a twinkling and uncertain light. Hitherto nothing had broken the silence around him but the deep cry of the bog-blitter, or bull-of-the-bog, a large species of bittern, and the sighs of the wind as it passed along the dreary morass. To these was now joined the distant roar of the ocean, towards which the traveller seemed to be fast approaching. This was no circumstance to make his mind easy. Many of the roads in that country lay along the sea-beach, and were liable to be flooded by the tides, which rise with great height, and advance with extreme rapidity. Others were intersected with creeks and small inlets,

which it was only safe to pass at particular times of the tide. Neither circumstance would have suited a dark night, a fatigued horse, and a traveller ignorant of his road. Mannering resolved, therefore, definitively to halt for the night at the first inhabited place, however poor, he might chance to reach, unless he could procure a guide to this unlucky village of Kippletringan.

A miserable hut gave him an opportunity to execute his purpose. He found out the door with no small difficulty, and for some time knocked without producing any other answer than a duet between a female and a cur-dog, the latter yelping as if he would have barked his heart out, the other screaming in chorus. By degrees the human tones predominated; but the angry bark of the cur being at the instant changed into a howl, it is probable something more than fair strength of lungs had contributed to the ascendency.

'Sorrow be in your thrapple then!' these were the first articulate words, 'will ye no let me hear what the man wants, wi' your yaffing?'

'Am I far from Kippletringan, good dame?'

'Frae Kippletringan!!!' in an exalted tone of wonder, which we can but faintly express by three points of admiration. 'Ow, man! ye should hae hadden eassel to Kippletringan; ye maun gae back as far as the whaap, and baud the whaap till ye come to Ballenloan, and then--'

'This will never do, good dame! my horse is almost quite knocked up; can you not give me a night's lodgings?'

'Troth can I no; I am a lone woman, for James he's awa to Drumshourloch Fair with the year-aulds, and I daurna for my life open the door to ony o' your gang-there-out sort o' bodies.'

'But what must I do then, good dame? for I can't sleep here upon the road all night.'

'Troth, I kenna, unless ye like to gae down and speer for quarters at the Place. I'se warrant they'll tak ye in, whether ye be gentle or semple.'

‘Simple enough, to be wandering here at such a time of night,’ thought Mannering, who was ignorant of the meaning of the phrase; ‘but how shall I get to the PLACE, as you call it?’

‘Ye maun baud wessel by the end o’ the loan, and take tent o’ the jaw-hole.’

‘O, if ye get to eassel and wessel again, I am undone! Is there nobody that could guide me to this Place? I will pay him handsomely.’

The word pay operated like magic. ‘Jock, ye villain,’ exclaimed the voice from the interior, ‘are ye lying routing there, and a young gentleman seeking the way to the Place? Get up, ye fause loon, and show him the way down the muckle loaning. He’ll show you the way, sir, and I’se warrant ye’ll be weel put up; for they never turn awa naebody frae the door; and ye ‘ll be come in the canny moment, I’m thinking, for the laird’s servant--that’s no to say his body-servant, but the helper like--rade express by this e’en to fetch the houdie, and he just staid the drinking o’ twa pints o’ tippenny to tell us how my leddy was ta’en wi’ her pains.’

‘Perhaps,’ said Mannering, ‘at such a time a stranger’s arrival might be inconvenient?’

‘Hout, na, ye needna be blate about that; their house is muckle eneugh, and decking time’s aye canty time.’

By this time Jock had found his way into all the intricacies of a tattered doublet and more tattered pair of breeches, and sallied forth, a great white-headed, bare-legged, lubberly boy of twelve years old, so exhibited by the glimpse of a rush-light which his half-naked mother held in such a manner as to get a peep at the stranger without greatly exposing herself to view in return. Jock moved on westward by the end of the house, leading Mannering’s horse by the bridle, and piloting with some dexterity along the little path which bordered the formidable jaw-hole, whose vicinity the stranger was made sensible of by means of more organs than one. His guide then dragged the weary hack along a broken and stony cart-track, next over a ploughed field, then broke down

a slap, as he called it, in a drystone fence, and lugged the unresisting animal through the breach, about a rood of the simple masonry giving way in the splutter with which he passed. Finally, he led the way through a wicket into something which had still the air of an avenue, though many of the trees were felled. The roar of the ocean was now near and full, and the moon, which began to make her appearance, gleamed on a turreted and apparently a ruined mansion of considerable extent. Mannering fixed his eyes upon it with a disconsolate sensation.

'Why, my little fellow,' he said, 'this is a ruin, not a house?'

'Ah, but the lairds lived there langsyne; that's Ellangowan Auld Place. There's a hantle bogles about it; but ye needna be feared, I never saw ony mysell, and we're just at the door o' the New Place.'

Accordingly, leaving the ruins on the right, a few steps brought the traveller in front of a modern house of moderate size, at which his guide rapped with great importance. Mannering told his circumstances to the servant; and the gentleman of the house, who heard his tale from the parlour, stepped forward and welcomed the stranger hospitably to Ellangowan. The boy, made happy with half-a-crown, was dismissed to his cottage, the weary horse was conducted to a stall, and Mannering found himself in a few minutes seated by a comfortable supper, for which his cold ride gave him a hearty appetite.

zaid n. adwan

CHAPTER II

Comes me cranking in,

And cuts me from the best of all my land
A huge half-moon, a monstrous cantle, out

Henry IV, Part 1.

The company in the parlour at Ellangowan consisted of the Laird and a sort of person who might be the village schoolmaster, or perhaps the minister's assistant; his appearance was too shabby to indicate the minister, considering he was on a visit to the Laird.

The Laird himself was one of those second-rate sort of persons that are to be found frequently in rural situations. Fielding has described one class as feras consumere nati; but the love of field-sports indicates a certain activity of mind, which had forsaken Mr. Bertram, if ever he possessed it. A good-humoured listlessness of countenance formed the only remarkable expression of his features, although they were rather handsome than otherwise. In fact, his physiognomy indicated the inanity of character which pervaded his life. I will give the reader some insight into his state and conversation before he has finished a long lecture to Mannering upon the propriety and comfort of wrapping his stirrup-irons round with a wisp of straw when he had occasion to ride in a chill evening.

Godfrey Bertram of Ellangowan succeeded to a long pedigree and a short rent-roll, like many lairds of that period. His list of forefathers ascended so high that they were lost in the barbarous ages of Galwegian independence, so that his genealogical tree, besides the Christian and crusading names of Godfreys, and Gilberts, and Dennises, and Rolands without end, bore heathen fruit of yet darker ages--Arths, and Knarths, and Donagilds, and Hanlons. In truth, they had been formerly the stormy chiefs of a desert but extensive domain, and the heads of a numerous tribe called Mac-Dingawaie, though they afterwards adopted the Norman surname of Bertram. They had made war, raised rebellions, been defeated, beheaded, and hanged, as became a family of importance, for many centuries. But they had gradually lost ground in the world, and, from being

themselves the heads of treason and traitorous conspiracies, the Bertrams, or Mac-Dingawaies, of Ellangowan had sunk into subordinate accomplices. Their most fatal exhibitions in this capacity took place in the seventeenth century, when the foul fiend possessed them with a spirit of contradiction, which uniformly involved them in controversy with the ruling powers. They reversed the conduct of the celebrated Vicar of Bray, and adhered as tenaciously to the weaker side as that worthy divine to the stronger. And truly, like him, they had their reward.

zaid n. adwan

ENLARGE

Allan Bertram of Ellangowan, who flourished tempore Caroli primi, was, says my authority, Sir Robert Douglas, in his Scottish Baronage (see the title ‘Ellangowan’), ‘a steady loyalist, and full of zeal for the cause of His Sacred Majesty, in which he united with the great Marquis of Montrose and other truly zealous and honourable patriots, and sustained great losses in that behalf. He had the honour of knighthood conferred upon him by His Most Sacred Majesty, and was sequestrated as a malignant by the parliament, 1642, and afterwards as a resolutioner in the year 1648.’ These two cross-grained epithets of malignant and resolutioner cost poor Sir Allan one half of the family

estate. His son Dennis Bertram married a daughter of an eminent fanatic who had a seat in the council of state, and saved by that union the remainder of the family property. But, as ill chance would have it, he became enamoured of the lady's principles as well as of her charms, and my author gives him this character: 'He was a man of eminent parts and resolution, for which reason he was chosen by the western counties one of the committee of noblemen and gentlemen to report their griefs to the privy council of Charles II. anent the coming in of the Highland host in 1678.' For undertaking this patriotic task he underwent a fine, to pay which he was obliged to mortgage half of the remaining moiety of his paternal property. This loss he might have recovered by dint of severe economy, but on the breaking out of Argyle's rebellion Dennis Bertram was again suspected by government, apprehended, sent to Dunnotar Castle on the coast of the Mearns, and there broke his neck in an attempt to escape from a subterranean habitation called the Whigs' Vault, in which he was confined with some eighty of the same persuasion. The apprizer therefore (as the holder of a mortgage was then called) entered upon possession, and, in the language of Hotspur, 'came me cranking in,' and cut the family out of another monstrous cantle of their remaining property.

Donohoe Bertram, with somewhat of an Irish name and somewhat of an Irish temper, succeeded to the diminished property of Ellangowan. He turned out of doors the Reverend Aaron Macbriar, his mother's chaplain (it is said they quarrelled about the good graces of a milkmaid); drank himself daily drunk with brimming healths to the king, council, and bishops; held orgies with the Laird of Lagg, Theophilus Oglethorpe, and Sir James Turner; and lastly, took his grey gelding and joined Clavers at Killiecrankie. At the skirmish of Dunkeld, 1689, he was shot dead by a Cameronian with a silver button (being supposed to have proof from the Evil One against lead and steel), and his grave is still called the Wicked Laird's Lair.

His son Lewis had more prudence than seems usually to have belonged to the family. He nursed what property was yet left to him; for Donohoe's excesses, as well as fines

and forfeitures, had made another inroad upon the estate. And although even he did not escape the fatality which induced the Lairds of Ellangowan to interfere with politics, he had yet the prudence, ere he went out with Lord Kenmore in 1715, to convey his estate to trustees, in order to parry pains and penalties in case the Earl of Mar could not put down the Protestant succession. But Scylla and Charybdis--a word to the wise--he only saved his estate at expense of a lawsuit, which again subdivided the family property. He was, however, a man of resolution. He sold part of the lands, evacuated the old cattle, where the family lived in their decadence as a mouse (said an old farmer) lives under a firlot. Pulling down part of these venerable ruins, he built with the stones a narrow house of three stories high, with a front like a grenadier's cap, having in the very centre a round window like the single eye of a Cyclops, two windows on each side, and a door in the middle, leading to a parlour and withdrawing-room full of all manner of cross lights.

This was the New Place of Ellangowan, in which we left our hero, better amused perhaps than our readers, and to this Lewis Bertram retreated, full of projects for re-establishing the prosperity of his family. He took some land into his own hand, rented some from neighbouring proprietors, bought and sold Highland cattle and Cheviot sheep, rode to fairs and trysts, fought hard bargains, and held necessity at the staff's end as well as he might. But what he gained in purse he lost in honour, for such agricultural and commercial negotiations were very ill looked upon by his brother lairds, who minded nothing but cock-fighting, hunting, coursing, and horse-racing, with now and then the alternative of a desperate duel. The occupations which he followed encroached, in their opinion, upon the article of Ellangowan's gentry, and he found it necessary gradually to estrange himself from their society, and sink into what was then a very ambiguous character, a gentleman farmer. In the midst of his schemes death claimed his tribute, and the scanty remains of a large property descended upon Godfrey Bertram, the present possessor, his only son.

The danger of the father's speculations was soon seen. Deprived of Laird Lewis's personal and active superintendence, all his undertakings miscarried, and became either abortive or perilous. Without a single spark of energy to meet or repel these misfortunes, Godfrey put his faith in the activity of another. He kept neither hunters nor hounds, nor any other southern preliminaries to ruin; but, as has been observed of his countrymen, he kept a man of business, who answered the purpose equally well. Under this gentleman's supervision small debts grew into large, interests were accumulated upon capitals, movable bonds became heritable, and law charges were heaped upon all; though Ellangowan possessed so little the spirit of a litigant that he was on two occasions charged to make payment of the expenses of a long lawsuit, although he had never before heard that he had such cases in court. Meanwhile his neighbours predicted his final ruin. Those of the higher rank, with some malignity, accounted him already a degraded brother. The lower classes, seeing nothing enviable in his situation, marked his embarrassments with more compassion. He was even a kind of favourite with them, and upon the division of a common, or the holding of a black-fishing or poaching court, or any similar occasion when they conceived themselves oppressed by the gentry, they were in the habit of saying to each other, 'Ah, if Ellangowan, honest man, had his ain that his forbears had afore him, he wadna see the puir folk trodden down this gait.' Meanwhile, this general good opinion never prevented their taking advantage of him on all possible occasions, turning their cattle into his parks, stealing his wood, shooting his game, and so forth, 'for the Laird, honest man, he'll never find it; he never minds what a puir body does.' Pedlars, gipsies, tinkers, vagrants of all descriptions, roosted about his outhouses, or harboured in his kitchen; and the Laird, who was 'nae nice body,' but a thorough gossip, like most weak men, found recompense for his hospitality in the pleasure of questioning them on the news of the country side.

A circumstance arrested Ellangowan's progress on the highroad to ruin. This was his marriage with a lady who had a portion of about four thousand pounds. Nobody in the neighbourhood could conceive why she married him and endowed him with her wealth,

unless because he had a tall, handsome figure, a good set of features, a genteel address, and the most perfect good-humour. It might be some additional consideration, that she was herself at the reflecting age of twenty-eight, and had no near relations to control her actions or choice.

It was in this lady's behalf (confined for the first time after her marriage) that the speedy and active express, mentioned by the old dame of the cottage, had been despatched to Kippletringan on the night of Mannering's arrival.

Though we have said so much of the Laird himself, it still remains that we make the reader in some degree acquainted with his companion. This was Abel Sampson, commonly called, from his occupation as a pedagogue, Dominie Sampson. He was of low birth, but having evinced, even from his cradle, an uncommon seriousness of disposition, the poor parents were encouraged to hope that their bairn, as they expressed it, 'might wag his pow in a pulpit yet.' With an ambitious view to such a consummation, they pinched and pared, rose early and lay down late, ate dry bread and drank cold water, to secure to Abel the means of learning. Meantime, his tall, ungainly figure, his taciturn and grave manners, and some grotesque habits of swinging his limbs and screwing his visage while reciting his task, made poor Sampson the ridicule of all his school-companions. The same qualities secured him at Glasgow College a plentiful share of the same sort of notice. Half the youthful mob of 'the yards' used to assemble regularly to see Dominie Sampson (for he had already attained that honourable title) descend the stairs from the Greek class, with his lexicon under his arm, his long misshapen legs sprawling abroad, and keeping awkward time to the play of his immense shoulder-blades, as they raised and depressed the loose and threadbare black coat which was his constant and only wear. When he spoke, the efforts of the professor (professor of divinity though he was) were totally inadequate to restrain the inextinguishable laughter of the students, and sometimes even to repress his own. The long, sallow visage, the goggle eyes, the huge under-jaw, which appeared not to open and shut by

an act of volition, but to be dropped and hoisted up again by some complicated machinery within the inner man, the harsh and dissonant voice, and the screech-owl notes to which it was exalted when he was exhorted to pronounce more distinctly,--all added fresh subject for mirth to the torn cloak and shattered shoe, which have afforded legitimate subjects of raillery against the poor scholar from Juvenal's time downward. It was never known that Sampson either exhibited irritability at this ill usage, or made the least attempt to retort upon his tormentors. He slunk from college by the most secret paths he could discover, and plunged himself into his miserable lodging, where, for eighteenpence a week, he was allowed the benefit of a straw mattress, and, if his landlady was in good humour, permission to study his task by her fire. Under all these disadvantages, he obtained a competent knowledge of Greek and Latin, and some acquaintance with the sciences.

In progress of time, Abel Sampson, probationer of divinity, was admitted to the privileges of a preacher. But, alas! partly from his own bashfulness, partly owing to a strong and obvious disposition to risibility which pervaded the congregation upon his first attempt, he became totally incapable of proceeding in his intended discourse, gasped, grinned, hideously rolled his eyes till the congregation thought them flying out of his head, shut the Bible, stumbled down the pulpit-stairs, trampling upon the old women who generally take their station there, and was ever after designated as a 'stickit minister.' And thus he wandered back to his own country, with blighted hopes and prospects, to share the poverty of his parents. As he had neither friend nor confidant, hardly even an acquaintance, no one had the means of observing closely how Dominie Sampson bore a disappointment which supplied the whole town with a week's sport. It would be endless even to mention the numerous jokes to which it gave birth, from a ballad called 'Sampson's Riddle,' written upon the subject by a smart young student of humanity, to the sly hope of the Principal that the fugitive had not, in imitation of his mighty namesake, taken the college gates along with him in his retreat.

To all appearance, the equanimity of Sampson was unshaken. He sought to assist his parents by teaching a school, and soon had plenty of scholars, but very few fees. In fact, he taught the sons of farmers for what they chose to give him, and the poor for nothing; and, to the shame of the former be it spoken, the pedagogue's gains never equalled those of a skilful ploughman. He wrote, however, a good hand, and added something to his pittance by copying accounts and writing letters for Ellangowan. By degrees, the Laird, who was much estranged from general society, became partial to that of Dominie Sampson. Conversation, it is true, was out of the question, but the Dominie was a good listener, and stirred the fire with some address. He attempted even to snuff the candles, but was unsuccessful, and relinquished that ambitious post of courtesy after having twice reduced the parlour to total darkness. So his civilities, thereafter, were confined to taking off his glass of ale in exactly the same time and measure with the Laird, and in uttering certain indistinct murmurs of acquiescence at the conclusion of the long and winding stories of Ellangowan.

On one of these occasions, he presented for the first time to Mannering his tall, gaunt, awkward, bony figure, attired in a threadbare suit of black, with a coloured handkerchief, not over clean, about his sinewy, scraggy neck, and his nether person arrayed in grey breeches, dark-blue stockings, clouted shoes, and small copper buckles.

Such is a brief outline of the lives and fortunes of those two persons in whose society Mannering now found himself comfortably seated.

zain adwan

CHAPTER III

Do not the hist'ries of all ages
Relate miraculous presages
Of strange turns in the world's affairs,
Foreseen by astrologers, soothsayers,
Chaldeans, learned genethliacs,
And some that have writ almanacks?

Hudibras.

The circumstances of the landlady were pleaded to Mannering, first, as an apology for her not appearing to welcome her guest, and for those deficiencies in his entertainment which her attention might have supplied, and then as an excuse for pressing an extra bottle of good wine. 'I cannot weel sleep,' said the Laird, with the anxious feelings of a father in such a predicament, 'till I hear she's gotten ower with it; and if you, sir, are not very sleepery, and would do me and the Dominie the honour to sit up wi' us, I am sure we shall not detain you very late. Luckie Howatson is very expeditious. There was ance a lass that was in that way; she did not live far from hereabouts--ye needna shake your head and groan, Dominie; I am sure the kirk dues were a' weel paid, and what can man do mair?--it was laid till her ere she had a sark ower her head; and the man that she since wadded does not think her a pin the waur for the misfortune. They live, Mr. Mannering, by the shoreside at Annan, and a mair decent, orderly couple, with six as fine bairns as ye would wish to see plash in a saltwater dub; and little curlie Godfrey--that's the eldest, the come o' will, as I may say--he's on board an excise yacht. I hae a cousin at the board of excise; that's Commissioner Bertram; he got his commissionership in the great contest for the county, that ye must have heard of, for it was appealed to the House of Commons. Now I should have voted there for the Laird of Balruddery; but ye see my father was a Jacobite, and out with Kenmore, so he never took the oaths; and I ken not weel how it was, but all that I could do and say, they keepit me off the roll, though my agent, that had a vote upon my estate, ranked as

a good vote for auld Sir Thomas Kittlecourt. But, to return to what I was saying, Luckie Howatson is very expeditious, for this lass--'

Here the desultory and long-winded narrative of the Laird was interrupted by the voice of some one ascending the stairs from the kitchen story, and singing at full pitch of voice. The high notes were too shrill for a man, the low seemed too deep for a woman. The words, as far as Mannering could distinguish them, seemed to run thus:--

Canny moment, lucky fit!
Is the lady lighter yet?
Be it lad, or be it lass,
Sign wi' cross and sain wi' mass.

'It's Meg Merrilies, the gipsy, as sure as I am a sinner,' said Mr. Bertram. The Dominie groaned deeply, uncrossed his legs, drew in the huge splay foot which his former posture had extended, placed it perpendicularly, and stretched the other limb over it instead, puffing out between whiles huge volumes of tobacco smoke. 'What needs ye groan, Dominie? I am sure Meg's sangs do nae ill.'

'Nor good neither,' answered Dominie Sampson, in a voice whose untuneable harshness corresponded with the awkwardness of his figure. They were the first words which Mannering had heard him speak; and as he had been watching with some curiosity when this eating, drinking, moving, and smoking automaton would perform the part of speaking, he was a good deal diverted with the harsh timber tones which issued from him. But at this moment the door opened, and Meg Merrilies entered.

Her appearance made Mannering start. She was full six feet high, wore a man's great-coat over the rest of her dress, had in her hand a goodly sloethorn cudgel, and in all points of equipment, except her petticoats, seemed rather masculine than feminine. Her dark elf-locks shot out like the snakes of the gorgon between an old-fashioned bonnet called a bongrace, heightening the singular effect of her strong and weather-beaten features, which they partly shadowed, while her eye had a wild roll that indicated something like real or affected insanity.

‘Aweel, Ellangowan,’ she said, ‘wad it no hae been a bonnie thing, an the leddy had been brought to bed, and me at the fair o’ Drumshourloch, no kenning, nor dreaming a word about it? Wha was to hae keepit awa the worriecows, I trow? Ay, and the elves and gyre-carlings frae the bonnie bairn, grace be wi’ it? Ay, or said Saint Colme’s charm for its sake, the dear?’ And without waiting an answer she began to sing--

Trefoil, vervain, John’s-wort, dill,
Hinders witches of their
will, Weel is them, that weel may
Fast upon Saint Andrew’s day.

Saint Bride and her brat,
Saint Colme and his cat,
Saint Michael and his spear,
Keep the house frae reif and wear.

This charm she sung to a wild tune, in a high and shrill voice, and, cutting three capers with such strength and agility as almost to touch the roof of the room, concluded, ‘And now, Laird, will ye no order me a tass o’ brandy?’

‘That you shall have, Meg. Sit down yont there at the door and tell us what news ye have heard at the fair o’ Drumshourloch.’

‘Troth, Laird, and there was muckle want o’ you, and the like o’ you; for there was a whin bonnie lasses there, forbye mysell, and deil ane to gie them hansels.’

‘Weel, Meg, and how mony gipsies were sent to the tolbooth?’

‘Troth, but three, Laird, for there were nae mair in the fair, bye mysell, as I said before, and I e’en gae them leg-bail, for there’s nae ease in dealing wi’ quarrelsome fowk. And there’s Dunbog has warned the Red Rotten and John Young aff his grunds--black be his cast! he’s nae gentleman, nor drap’s bluid o’ gentleman, wad grudge twa gangrel puir bodies the shelter o’ a waste house, and the thristles by the roadside for a bit cuddy, and the bits o’ rotten birk to boil their drap parritch wi’. Weel, there’s Ane abune a’; but we’ll see if the red cock craw not in his bonnie barn-yard ae morning before day-dawing.’

Zain Adwan

‘Hush! Meg, hush! hush! that’s not safe talk.’

‘What does she mean?’ said Mannering to Sampson, in an undertone.

‘Fire-raising,’ answered the laconic Dominie.

‘Who, or what is she, in the name of wonder?’

‘Harlot, thief, witch, and gipsy,’ answered Sampson again.

‘O troth, Laird,’ continued Meg, during this by-talk, ‘it’s but to the like o’ you ane can open their heart; ye see, they say Dunbog is nae mair a gentleman than the blunker that’s biggit the bonnie house down in the howm. But the like o’ you, Laird, that’s a real gentleman for sae mony hundred years, and never hunds puir fowk aff your grund as if they were mad tykes, nane o’ our fowk wad stir your gear if ye had as mony capons as there’s leaves on the trysting-tree. And now some o’ ye maun lay down your watch, and tell me the very minute o’ the hour the wean’s born, an I’ll spae its fortune.’

‘Ay, but, Meg, we shall not want your assistance, for here’s a student from Oxford that kens much better than you how to spae its fortune; he does it by the stars.’

‘Certainly, sir,’ said Mannering, entering into the simple humour of his landlord, ‘I will calculate his nativity according to the rule of the “triplicities,” as recommended by Pythagoras, Hippocrates, Diocles, and Avicenna. Or I will begin ab hora questionis, as Haly, Messahala, Ganwehis, and Guido Bonatus have recommended.’

One of Sampson’s great recommendations to the favour of Mr. Bertram was, that he never detected the most gross attempt at imposition, so that the Laird, whose humble efforts at jocularity were chiefly confined to what were then called bites and bams, since denominated hoaxes and quizzes, had the fairest possible subject of wit in the unsuspecting Dominie. It is true, he never laughed, or joined in the laugh which his own simplicity afforded--nay, it is said, he never laughed but once in his life, and on that memorable occasion his landlady miscarried, partly through surprise at the event itself, and partly from terror at the hideous grimaces which attended this unusual cachinnation. The only effect which the discovery of such impositions produced upon this saturnine

personage was, to extort an ejaculation of ‘Prodigious!’ or ‘Very facetious!’ pronounced syllabically, but without moving a muscle of his own countenance.

On the present occasion, he turned a gaunt and ghastly stare upon the youthful astrologer, and seemed to doubt if he had rightly understood his answer to his patron.

‘I am afraid, sir,’ said Mannering, turning towards him, ‘you may be one of those unhappy persons who, their dim eyes being unable to penetrate the starry spheres, and to discern therein the decrees of heaven at a distance, have their hearts barred against conviction by prejudice and misprision.’

‘Truly,’ said Sampson, ‘I opine with Sir Isaac Newton, Knight, and umwhile master of his Majesty’s mint, that the (pretended) science of astrology is altogether vain, frivolous, and unsatisfactory.’ And here he reposed his oracular jaws.

‘Really,’ resumed the traveller, ‘I am sorry to see a gentleman of your learning and gravity labouring under such strange blindness and delusion. Will you place the brief, the modern, and, as I may say, the vernacular name of Isaac Newton in opposition to the grave and sonorous authorities of Dariot, Bonatus, Ptolemy, Haly, Eztler, Dieterick, Naibob, Harfurt, Zael, Taustettor, Agrippa, Duretus, Maginus, Origen, and Argol? Do not Christians and Heathens, and Jews and Gentiles, and poets and philosophers, unite in allowing the starry influences?’

‘Communis error--it is a general mistake,’ answered the inflexible Dominie Sampson.

‘Not so,’ replied the young Englishman; ‘it is a general and well-grounded belief.’

‘It is the resource of cheaters, knaves, and cozeners,’ said Sampson.

‘Abusus non tollit usum.--The abuse of anything doth not abrogate the lawful use thereof.’

During this discussion Ellangowan was somewhat like a woodcock caught in his own springe. He turned his face alternately from the one spokesman to the other, and began, from the gravity with which Mannering plied his adversary, and the learning which he displayed in the controversy, to give him credit for being half serious. As for Meg, she

fixed her bewildered eyes upon the astrologer, overpowered by a jargon more mysterious than her own.

Mannering pressed his advantage, and ran over all the hard terms of art which a tenacious memory supplied, and which, from circumstances hereafter to be noticed, had been familiar to him in early youth.

Signs and planets, in aspects sextile, quartile, trine, conjoined, or opposite; houses of heaven, with their cusps, hours, and minutes; almuten, almochoden, anabibazon, catabibazon; a thousand terms of equal sound and significance, poured thick and threefold upon the unshrinking Dominie, whose stubborn incredulity bore him out against the pelting of this pitiless storm.

At length the joyful annunciation that the lady had presented her husband with a fine boy, and was (of course) as well as could be expected, broke off this intercourse. Mr. Bertram hastened to the lady's apartment, Meg Merrilies descended to the kitchen to secure her share of the groaning malt and the 'ken-no,' [Footnote: See Note i.] and Mannering, after looking at his watch, and noting with great exactness the hour and minute of the birth, requested, with becoming gravity, that the Dominie would conduct him to some place where he might have a view of the heavenly bodies.

The schoolmaster, without further answer, rose and threw open a door half sashed with glass, which led to an old-fashioned terrace-walk behind the modern house, communicating with the platform on which the ruins of the ancient castle were situated. The wind had arisen, and swept before it the clouds which had formerly obscured the sky. The moon was high, and at the full, and all the lesser satellites of heaven shone forth in cloudless effulgence. The scene which their light presented to Mannering was in the highest degree unexpected and striking.

We have observed, that in the latter part of his journey our traveller approached the sea-shore, without being aware how nearly. He now perceived that the ruins of Ellangowan Castle were situated upon a promontory, or projection of rock, which

formed one side of a small and placid bay on the sea-shore. The modern mansion was placed lower, though closely adjoining, and the ground behind it descended to the sea by a small swelling green bank, divided into levels by natural terraces, on which grew some old trees, and terminating upon the white sand. The other side of the bay, opposite to the old castle, was a sloping and varied promontory, covered chiefly with copsewood, which on that favoured coast grows almost within water-mark. A fisherman's cottage peeped from among the trees. Even at this dead hour of night there were lights moving upon the shore, probably occasioned by the unloading a smuggling lugger from the Isle of Man which was lying in the bay. On the light from the sashed door of the house being observed, a halloo from the vessel of 'Ware hawk! Douse the glim!' alarmed those who were on shore, and the lights instantly disappeared.

It was one hour after midnight, and the prospect around was lovely. The grey old towers of the ruin, partly entire, partly broken, here bearing the rusty weather-stains of ages, and there partially mantled with ivy, stretched along the verge of the dark rock which rose on Mannering's right hand. In his front was the quiet bay, whose little waves, crisping and sparkling to the moonbeams, rolled successively along its surface, and dashed with a soft and murmuring ripple against the silvery beach. To the left the woods advanced far into the ocean, waving in the moonlight along ground of an undulating and varied form, and presenting those varieties of light and shade, and that interesting combination of glade and thicket, upon which the eye delights to rest, charmed with what it sees, yet curious to pierce still deeper into the intricacies of the woodland scenery. Above rolled the planets, each, by its own liquid orbit of light, distinguished from the inferior or more distant stars. So strangely can imagination deceive even those by whose volition it has been excited, that Mannering, while gazing upon these brilliant bodies, was half inclined to believe in the influence ascribed to them by superstition over human events. But Mannering was a youthful lover, and might perhaps be influenced by the feelings so exquisitely expressed by a modern poet:--

For fable is Love's world, his home, his birthplace:

Delightedly dwells he 'mong fays, and talismans,
And spirits, and delightedly believes
Divinities, being himself divine
The intelligible forms of ancient poets,
The fair humanities of old religion,
The power,the beauty, and the majesty,
That had their haunts in dale, or piny mountain,
Or forest, by slow stream, or pebbly spring,
Or chasms and wat'ry depths--all these have vanish'd;
They live no longer in the faith of reason!
But still the heart doth need a language, still
Doth the old instinct bring back the old names.
And to yon starry world they now are gone,
Spirits or gods, that used to share this earth
With man as with their friend, and to the lover
Yonder they move, from yonder visible sky
Shoot influence down; and even at this day
'T is Jupiter who brings whate'er is great,
And Venus who brings everything that's fair.

Such musings soon gave way to others. 'Alas!' he muttered, 'my good old tutor, who used to enter so deep into the controversy between Heydon and Chambers on the subject of astrology, he would have looked upon the scene with other eyes, and would have seriously endeavoured to discover from the respective positions of these luminaries their probable effects on the destiny of the new-born infant, as if the courses or emanations of the stars superseded, or at least were co-ordinate with, Divine Providence. Well, rest be with him! he instilled into me enough of knowledge for erecting a scheme of nativity, and therefore will I presently go about it.' So saying, and having noted the position of the principal planetary bodies, Guy Mannering returned to the house. The Laird met him in the parlour, and, acquainting him with great glee that the boy was a fine healthy little fellow, seemed rather disposed to press further conviviality. He admitted, however, Mannering's plea of weariness, and, conducting him to his sleeping apartment, left him to repose for the evening.

CHAPTER IV

Come and see' trust thine own eyes
A fearful sign stands in the house of life,
An enemy a fiend lurks close behind
The radiance of thy planet O be warned!

COLERIDGE, from SCHILLER

The belief in astrology was almost universal in the middle of the seventeenth century; it began to waver and become doubtful towards the close of that period, and in the beginning of the eighteenth the art fell into general disrepute, and even under general ridicule. Yet it still retained many partizans even in the seats of learning. Grave and studious men were loath to relinquish the calculations which had early become the principal objects of their studies, and felt reluctant to descend from the predominating height to which a supposed insight into futurity, by the power of consulting abstract influences and conjunctions, had exalted them over the rest of mankind.

Among those who cherished this imaginary privilege with undoubting faith was an old clergyman with whom Mannering was placed during his youth. He wasted his eyes in observing the stars, and his brains in calculations upon their various combinations. His pupil, in early youth, naturally caught some portion of his enthusiasm, and laboured for a time to make himself master of the technical process of astrological research; so that, before he became convinced of its absurdity, William Lilly himself would have allowed him 'a curious fancy and piercing judgment in resolving a question of nativity.'

On the present occasion he arose as early in the morning as the shortness of the day permitted, and proceeded to calculate the nativity of the young heir of Ellangowan. He

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undertook the task secundum artem, as well to keep up appearances as from a sort of curiosity to know whether he yet remembered, and could practise, the imaginary science. He accordingly erected his scheme, or figure of heaven, divided into its twelve houses, placed the planets therein according to the ephemeris, and rectified their position to the hour and moment of the nativity. Without troubling our readers with the general prognostications which judicial astrology would have inferred from these circumstances, in this diagram there was one significator which pressed remarkably upon our astrologer's attention. Mars, having dignity in the cusp of the twelfth house, threatened captivity or sudden and violent death to the native; and Mannering, having recourse to those further rules by which diviners pretend to ascertain the vehemency of this evil direction, observed from the result that three periods would be particularly hazardous--his fifth, his tenth, his twenty-first year.

It was somewhat remarkable that Mannering had once before tried a similar piece of foolery at the instance of Sophia Wellwood, the young lady to whom he was attached, and that a similar conjunction of planetary influence threatened her with death or imprisonment in her thirty-ninth year. She was at this time eighteen; so that, according to the result of the scheme in both cases, the same year threatened her with the same misfortune that was presaged to the native or infant whom that night had introduced into the world. Struck with this coincidence, Mannering repeated his calculations; and the result approximated the events predicted, until at length the same month, and day of the month, seemed assigned as the period of peril to both.

It will be readily believed that, in mentioning this circumstance, we lay no weight whatever upon the pretended information thus conveyed. But it often happens, such is our natural love for the marvellous, that we willingly contribute our own efforts to beguile our better judgments. Whether the coincidence which I have mentioned was really one of those singular chances which sometimes happen against all ordinary calculations; or whether Mannering, bewildered amid the arithmetical labyrinth and

technical jargon of astrology, had insensibly twice followed the same clue to guide him out of the maze; or whether his imagination, seduced by some point of apparent resemblance, lent its aid to make the similitude between the two operations more exactly accurate than it might otherwise have been, it is impossible to guess; but the impression upon his mind that the results exactly corresponded was vividly and indelibly strong.

He could not help feeling surprise at a coincidence so singular and unexpected. 'Does the devil mingle in the dance, to avenge himself for our trifling with an art said to be of magical origin? Or is it possible, as Bacon and Sir Thomas Browne admit, that there is some truth in a sober and regulated astrology, and that the influence of the stars is not to be denied, though the due application of it by the knaves who pretend to practise the art is greatly to be suspected?' A moment's consideration of the subject induced him to dismiss this opinion as fantastical, and only sanctioned by those learned men either because they durst not at once shock the universal prejudices of their age, or because they themselves were not altogether freed from the contagious influence of a prevailing superstition. Yet the result of his calculations in these two instances left so unpleasing an impression on his mind that, like Prospero, he mentally relinquished his art, and resolved, neither in jest nor earnest, ever again to practise judicial astrology.

He hesitated a good deal what he should say to the Laird of Ellangowan concerning the horoscope of his first-born; and at length resolved plainly to tell him the judgment which he had formed, at the same time acquainting him with the futility of the rules of art on which he had proceeded. With this resolution he walked out upon the terrace.

If the view of the scene around Ellangowan had been pleasing by moonlight, it lost none of its beauty by the light of the morning sun. The land, even in the month of November, smiled under its influence. A steep but regular ascent led from the terrace to the neighbouring eminence, and conducted Mannering to the front of the old castle. It consisted of two massive round towers projecting deeply and darkly at the extreme

angles of a curtain, or flat wall, which united them, and thus protecting the main entrance, that opened through a lofty arch in the centre of the curtain into the inner court of the castle. The arms of the family, carved in freestone, frowned over the gateway, and the portal showed the spaces arranged by the architect for lowering the portcullis and raising the drawbridge. A rude farm-gate, made of young fir-trees nailed together, now formed the only safeguard of this once formidable entrance. The esplanade in front of the castle commanded a noble prospect.

The dreary scene of desolation through which Mannering's road had lain on the preceding evening was excluded from the view by some rising ground, and the landscape showed a pleasing alternation of hill and dale, intersected by a river, which was in some places visible, and hidden in others, where it rolled betwixt deep and wooded banks. The spire of a church and the appearance of some houses indicated the situation of a village at the place where the stream had its junction with the ocean. The vales seemed well cultivated, the little inclosures into which they were divided skirting the bottom of the hills, and sometimes carrying their lines of straggling hedgerows a little way up the ascent. Above these were green pastures, tenanted chiefly by herds of black cattle, then the staple commodity of the country, whose distant low gave no unpleasing animation to the landscape. The remoter hills were of a sterner character, and, at still greater distance, swelled into mountains of dark heath, bordering the horizon with a screen which gave a defined and limited boundary to the cultivated country, and added at the same time the pleasing idea that it was sequestered and solitary. The sea-coast, which Mannering now saw in its extent, corresponded in variety and beauty with the inland view. In some places it rose into tall rocks, frequently crowned with the ruins of old buildings, towers, or beacons, which, according to tradition, were placed within sight of each other, that, in times of invasion or civil war, they might communicate by signal for mutual defence and protection. Ellangowan Castle was by far the most extensive and important of these ruins, and asserted from size and situation the superiority which its founders were said once to have possessed among the chiefs and

nobles of the district. In other places the shore was of a more gentle description, indented with small bays, where the land sloped smoothly down, or sent into the sea promontories covered with wood.

ENLARGE

A scene so different from what last night's journey had presaged produced a proportional effect upon Mannering. Beneath his eye lay the modern house--an awkward mansion, indeed, in point of architecture, but well situated, and with a warm, pleasant exposure. 'How happily,' thought our hero, 'would life glide on in such a retirement! On the one hand, the striking remnants of ancient grandeur, with the secret consciousness of family pride which they inspire; on the other, enough of modern elegance and comfort to satisfy every moderate wish. Here then, and with thee, Sophia!'

We shall not pursue a lover's day-dream any farther. Mannering stood a minute with his arms folded, and then turned to the ruined castle.

On entering the gateway, he found that the rude magnificence of the inner court amply corresponded with the grandeur of the exterior. On the one side ran a range of windows lofty and large, divided by carved mullions of stone, which had once lighted the great hall of the castle; on the other were various buildings of different heights and dates, yet so united as to present to the eye a certain general effect of uniformity of front. The doors and windows were ornamented with projections exhibiting rude specimens of sculpture and tracery, partly entire and partly broken down, partly covered by ivy and trailing plants, which grew luxuriantly among the ruins. That end of the court which faced the entrance had also been formerly closed by a range of buildings; but owing, it was said, to its having been battered by the ships of the Parliament under Deane, during the long civil war, this part of the castle was much more ruinous than the rest, and exhibited a great chasm, through which Mannering could observe the sea, and the little vessel (an armed lugger), which retained her station in the centre of the bay. [Footnote: The outline of the above description, as far as the supposed ruins are concerned, will be found somewhat to resemble the noble remains of Carlaverock Castle, six or seven

miles from Dumfries, and near to Lochar Moss.] While Mannering was gazing round the ruins, he heard from the interior of an apartment on the left hand the voice of the gipsy he had seen on the preceding evening. He soon found an aperture through which he could observe her without being himself visible; and could not help feeling that her figure, her employment, and her situation conveyed the exact impression of an ancient sibyl.

She sate upon a broken corner-stone in the angle of a paved apartment, part of which she had swept clean to afford a smooth space for the evolutions of her spindle. A strong sunbeam through a lofty and narrow window fell upon her wild dress and features, and afforded her light for her occupation; the rest of the apartment was very gloomy. Equipt in a habit which mingled the national dress of the Scottish common people with something of an Eastern costume, she spun a thread drawn from wool of three different colours, black, white, and grey, by assistance of those ancient implements of housewifery now almost banished from the land, the distaff and spindle. As she spun, she sung what seemed to be a charm. Mannering, after in vain attempting to make himself master of the exact words of her song, afterwards attempted the following paraphrase of what, from a few intelligible phrases, he concluded to be its purport:--

Twist ye, twine ye! even so
Mingle shades of joy and woe,
Hope, and fear, and peace, and strife,
In the thread of human life.

While the mystic twist is spinning,
And the infant's life beginning,
Dimly seen through twilight bending,
Lo, what varied shapes attending!

Passions wild, and Follies vain,
Pleasures soon exchanged for pain,
Doubt, and Jealousy, and Fear
In the magic dance appear.

Now they wax, and now they dwindle,
Whirling with the whirling spindle.
Twist ye, twine ye! even so

Mingle human bliss and woe.

Ere our translator, or rather our free imitator, had arranged these stanzas in his head, and while he was yet hammering out a rhyme for DWINDLE, the task of the sibyl was accomplished, or her wool was expended. She took the spindle, now charged with her labours, and, undoing the thread gradually, measured it by casting it over her elbow and bringing each loop round between her forefinger and thumb. When she had measured it out, she muttered to herself--'A hank, but not a haill ane--the full years o' three score and ten, but thrice broken, and thrice to OOP (i.e. to unite); he'll be a lucky lad an he win through wi't.'

Our hero was about to speak to the prophetess, when a voice, hoarse as the waves with which it mingled, hallooed twice, and with increasing impatience--'Meg, Meg Merrilies! Gipsy--hag--tausend deyvils!'

'I am coming, I am coming, Captain,' answered Meg; and in a moment or two the impatient commander whom she addressed made his appearance from the broken part of the ruins.

He was apparently a seafaring man, rather under the middle size, and with a countenance bronzed by a thousand conflicts with the north-east wind. His frame was prodigiously muscular, strong, and thick-set; so that it seemed as if a man of much greater height would have been an inadequate match in any close personal conflict. He was hard-favoured, and, which was worse, his face bore nothing of the insouciance, the careless, frolicsome jollity and vacant curiosity, of a sailor on shore. These qualities, perhaps, as much as any others, contribute to the high popularity of our seamen, and the general good inclination which our society expresses towards them. Their gallantry, courage, and hardihood are qualities which excite reverence, and perhaps rather humble pacific landsmen in their presence; and neither respect nor a sense of humiliation are feelings easily combined with a familiar fondness towards those who inspire them. But the boyish frolics, the exulting high spirits, the unreflecting mirth of a sailor when

zain.adwan

enjoying himself on shore, temper the more formidable points of his character. There was nothing like these in this man's face; on the contrary, a surly and even savage scowl appeared to darken features which would have been harsh and unpleasant under any expression or modification. 'Where are you, Mother Deyvilson?' he said, with somewhat of a foreign accent, though speaking perfectly good English. 'Donner and blitzen! we have been staying this half-hour. Come, bless the good ship and the voyage, and be cursed to ye for a hag of Satan!'

At this moment he noticed Mannering, who, from the position which he had taken to watch Meg Merrilies's incantations, had the appearance of some one who was concealing himself, being half hidden by the buttress behind which he stood. The Captain, for such he styled himself, made a sudden and startled pause, and thrust his right hand into his bosom between his jacket and waistcoat as if to draw some weapon. 'What cheer, brother? you seem on the outlook, eh?' Ere Mannering, somewhat struck by the man's gesture and insolent tone of voice, had made any answer, the gipsy emerged from her vault and joined the stranger. He questioned her in an undertone, looking at Mannering--'A shark alongside, eh?'

She answered in the same tone of under-dialogue, using the cant language of her tribe--'Cut ben whids, and stow them; a gentry cove of the ken.' [Footnote: Meaning--Stop your uncivil language; that is a gentleman from the house below.]

The fellow's cloudy visage cleared up. 'The top of the morning to you, sir; I find you are a visitor of my friend Mr. Bertram. I beg pardon, but I took you for another sort of a person.'

Mannering replied, 'And you, sir, I presume, are the master of that vessel in the bay?'

'Ay, ay, sir; I am Captain Dirk Hatteraick, of the Yungfrauw Hagenslaapen, well known on this coast; I am not ashamed of my name, nor of my vessel--no, nor of my cargo neither for that matter.'

'I daresay you have no reason, sir.'

‘Tausend donner, no; I’m all in the way of fair trade. Just loaded yonder at Douglas, in the Isle of Man--neat cogniac--real hyson and souchong--Mechlin lace, if you want any--right cogniac--we bumped ashore a hundred kegs last night.’

‘Really, sir, I am only a traveller, and have no sort of occasion for anything of the kind at present.’

‘Why, then, good-morning to you, for business must be minded--unless ye’ll go aboard and take schnaps; you shall have a pouch-full of tea ashore. Dirk Hatteraick knows how to be civil.’

There was a mixture of impudence, hardihood, and suspicious fear about this man which was inexpressibly disgusting. His manners were those of a ruffian, conscious of the suspicion attending his character, yet aiming to bear it down by the affectation of a careless and hardy familiarity. Mannering briefly rejected his proffered civilities; and, after a surly good-morning, Hatteraick retired with the gipsy to that part of the ruins from which he had first made his appearance. A very narrow staircase here went down to the beach, intended probably for the convenience of the garrison during a siege. By this stair the couple, equally amiable in appearance and respectable by profession, descended to the sea-side. The soi-disant captain embarked in a small boat with two men, who appeared to wait for him, and the gipsy remained on the shore, reciting or singing, and gesticulating with great vehemence.

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CHAPTER V

You have fed upon my seignories,
Dispark'd my parks, and fell'd my forest woods,
From mine own windows torn my household coat,
Razed out my impress, leaving me no sign,
Save men's opinions and my living blood,
To show the world I am a gentleman.

Richard II.

When the boat which carried the worthy captain on board his vessel had accomplished that task, the sails began to ascend, and the ship was got under way. She fired three guns as a salute to the house of Ellangowan, and then shot away rapidly before the wind, which blew off shore, under all the sail she could crowd.

'Ay, ay,' said the Laird, who had sought Mannering for some time, and now joined him, 'there they go--there go the free-traders--there go Captain Dirk Hatteraick and the Yungfrauw Hagenslaapen, half Manks, half Dutchman, half devil! run out the boltsprit, up mainsail, top and top-gallant sails, royals, and skyscrapers, and away--follow who can! That fellow, Mr. Mannering, is the terror of all the excise and custom-house cruisers; they can make nothing of him; he drubs them, or he distances them;--and, speaking of excise, I come to bring you to breakfast; and you shall have some tea, that--'

Mannering by this time was aware that one thought linked strangely on to another in the concatenation of worthy Mr. Bertram's ideas,

Like orient pearls at random strung;

and therefore, before the current of his associations had drifted farther from the point he had left, he brought him back by some inquiry about Dirk Hatteraick.

'O he's a--a--gude sort of blackguard fellow eneugh; naebody cares to trouble him--smuggler, when his guns are in ballast--privateer, or pirate, faith, when he gets them mounted. He has done more mischief to the revenue folk than ony rogue that ever came out of Ramsay.'

‘But, my good sir, such being his character, I wonder he has any protection and encouragement on this coast.’

‘Why, Mr. Mannering, people must have brandy and tea, and there’s none in the country but what comes this way; and then there’s short accounts, and maybe a keg or two, or a dozen pounds, left at your stable-door, instead of a d--d lang account at Christmas from Duncan Robb, the grocer at Kippletringan, who has aye a sum to make up, and either wants ready money or a short-dated bill. Now, Hatteraick will take wood, or he’ll take bark, or he’ll take barley, or he’ll take just what’s convenient at the time. I’ll tell you a gude story about that. There was ance a laird--that’s Macfie of Gudgeonford,--he had a great number of kain hens--that’s hens that the tenant pays to the landlord, like a sort of rent in kind. They aye feed mine very ill; Luckie Finniston sent up three that were a shame to be seen only last week, and yet she has twelve bows sowing of victual; indeed her goodman, Duncan Finniston--that’s him that’s gone--(we must all die, Mr. Mannering, that’s ower true)--and, speaking of that, let us live in the meanwhile, for here’s breakfast on the table, and the Dominie ready to say the grace.’

The Dominie did accordingly pronounce a benediction, that exceeded in length any speech which Mannering had yet heard him utter. The tea, which of course belonged to the noble Captain Hatteraick’s trade, was pronounced excellent. Still Mannering hinted, though with due delicacy, at the risk of encouraging such desperate characters. ‘Were it but in justice to the revenue, I should have supposed--’

‘Ah, the revenue lads’--for Mr. Bertram never embraced a general or abstract idea, and his notion of the revenue was personified in the commissioners, surveyors, comptrollers, and riding officers whom he happened to know--’the revenue lads can look sharp eneugh out for themselves, no ane needs to help them; and they have a’ the soldiers to assist them besides; and as to justice--you ‘ll be surprised to hear it, Mr. Mannering, but I am not a justice of peace!’

Mannering assumed the expected look of surprise, but thought within himself that the worshipful bench suffered no great deprivation from wanting the assistance of his good-humoured landlord. Mr. Bertram had now hit upon one of the few subjects on which he felt sore, and went on with some energy.

'No, sir, the name of Godfrey Bertram of Ellangowan is not in the last commission, though there's scarce a carle in the country that has a plough-gate of land, but what he must ride to quarter-sessions and write J.P. after his name. I ken fu' weel whom I am obliged to--Sir Thomas Kittlecourt as good as tell'd me he would sit in my skirts if he had not my interest at the last election; and because I chose to go with my own blood and third cousin, the Laird of Balruddery, they keepit me off the roll of freeholders; and now there comes a new nomination of justices, and I am left out! And whereas they pretend it was because I let David Mac-Guffog, the constable, draw the warrants, and manage the business his ain gate, as if I had been a nose o' wax, it's a main untruth; for I granted but seven warrants in my life, and the Dominie wrote every one of them--and if it had not been that unlucky business of Sandy Mac-Gruthar's, that the constables should have keepit twa or three days up yonder at the auld castle, just till they could get conveniency to send him to the county jail--and that cost me eneugh o' siller. But I ken what Sir Thomas wants very weel--it was just sic and siclike about the seat in the kirk o' Kilmagirdle--was I not entitled to have the front gallery facing the minister, rather than Mac-Crosskie of Creochstone, the son of Deacon Mac-Crosskie, the Dumfries weaver?'

Mannering expressed his acquiescence in the justice of these various complaints.

'And then, Mr. Mannering, there was the story about the road and the fauld-dike. I ken Sir Thomas was behind there, and I said plainly to the clerk to the trustees that I saw the cloven foot, let them take that as they like. Would any gentleman, or set of gentlemen, go and drive a road right through the corner of a fauld-dike and take away,

as my agent observed to them, like twa roods of gude moorland pasture? And there was the story about choosing the collector of the cess--'

'Certainly, sir, it is hard you should meet with any neglect in a country where, to judge from the extent of their residence, your ancestors must have made a very important figure.'

'Very true, Mr. Mannering; I am a plain man and do not dwell on these things, and I must needs say I have little memory for them; but I wish ye could have heard my father's stories about the auld fights of the Mac-Dingawaies--that's the Bertrams that now is--wi' the Irish and wi' the Highlanders that came here in their berlings from Ilay and Cantire; and how they went to the Holy Land--that is, to Jerusalem and Jericho, wi' a' their clan at their heels--they had better have gaen to Jamaica, like Sir Thomas Kittlecourt's uncle--and how they brought hame relics like those that Catholics have, and a flag that's up yonder in the garret. If they had been casks of muscavado and puncheons of rum it would have been better for the estate at this day; but there's little comparison between the auld keep at Kittlecourt and the castle o' Ellangowan; I doubt if the keep's forty feet of front. But ye make no breakfast, Mr. Mannering; ye're no eating your meat; allow me to recommend some of the kipper. It was John Hay that catcht it, Saturday was three weeks, down at the stream below Hempseed ford,' etc. etc. etc.

The Laird, whose indignation had for some time kept him pretty steady to one topic, now launched forth into his usual roving style of conversation, which gave Mannering ample time to reflect upon the disadvantages attending the situation which an hour before he had thought worthy of so much envy. Here was a country gentleman, whose most estimable quality seemed his perfect good-nature, secretly fretting himself and murmuring against others for causes which, compared with any real evil in life, must weigh like dust in the balance. But such is the equal distribution of Providence. To those who lie out of the road of great afflictions are assigned petty vexations which answer

all the purpose of disturbing their serenity; and every reader must have observed that neither natural apathy nor acquired philosophy can render country gentlemen insensible to the grievances which occur at elections, quarter-sessions, and meetings of trustees.

Curious to investigate the manners of the country, Mannering took the advantage of a pause in good Mr. Bertram's string of stories to inquire what Captain Hatteraick so earnestly wanted with the gipsy woman.

'O, to bless his ship, I suppose. You must know, Mr. Mannering, that these free-traders, whom the law calls smugglers, having no religion, make it all up in superstition; and they have as many spells and charms and nonsense--'

'Vanity and waur!' said the Dominie;' it is a trafficking with the Evil One. Spells, periapts, and charms are of his device--choice arrows out of Apollyon's quiver.'

'Hold your peace, Dominie; ye're speaking for ever'--by the way, they were the first words the poor man had uttered that morning, excepting that he said grace and returned thanks--'Mr. Mannering cannot get in a word for ye! And so, Mr. Mannering, talking of astronomy and spells and these matters, have ye been so kind as to consider what we were speaking about last night?'

'I begin to think, Mr. Bertram, with your worthy friend here, that I have been rather jesting with edge-tools; and although neither you nor I, nor any sensible man, can put faith in the predictions of astrology, yet, as it has sometimes happened that inquiries into futurity, undertaken in jest, have in their results produced serious and unpleasant effects both upon actions and characters, I really wish you would dispense with my replying to your question.'

It was easy to see that this evasive answer only rendered the Laird's curiosity more uncontrollable. Mannering, however, was determined in his own mind not to expose the infant to the inconveniences which might have arisen from his being supposed the object of evil prediction. He therefore delivered the paper into Mr. Bertram's hand, and requested him to keep it for five years with the seal unbroken, until the month of

November was expired. After that date had intervened he left him at liberty to examine the writing, trusting that, the first fatal period being then safely overpassed, no credit would be paid to its farther contents. This Mr. Bertram was content to promise, and Mannering, to ensure his fidelity, hinted at misfortunes which would certainly take place if his injunctions were neglected. The rest of the day, which Mannering, by Mr. Bertram's invitation, spent at Ellangowan, passed over without anything remarkable; and on the morning of that which followed the traveller mounted his palfrey, bade a courteous adieu to his hospitable landlord and to his clerical attendant, repeated his good wishes for the prosperity of the family, and then, turning his horse's head towards England, disappeared from the sight of the inmates of Ellangowan. He must also disappear from that of our readers, for it is to another and later period of his life that the present narrative relates.

CHAPTER VI

Next, the Justice,
In fair round belly with good capon lined,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances--
And so he plays his part

--As You Like It

When Mrs. Bertram of Ellangowan was able to hear the news of what had passed during her confinement, her apartment rung with all manner of gossiping respecting the handsome young student from Oxford who had told such a fortune by the stars to the

young Laird, ‘blessings on his dainty face.’ The form, accent, and manners of the stranger were expatiated upon. His horse, bridle, saddle, and stirrups did not remain unnoticed. All this made a great impression upon the mind of Mrs. Bertram, for the good lady had no small store of superstition.

Her first employment, when she became capable of a little work, was to make a small velvet bag for the scheme of nativity which she had obtained from her husband. Her fingers itched to break the seal, but credulity proved stronger than curiosity; and she had the firmness to inclose it, in all its integrity, within two slips of parchment, which she sewed round it to prevent its being chafed. The whole was then put into the velvet bag aforesaid, and hung as a charm round the neck of the infant, where his mother resolved it should remain until the period for the legitimate satisfaction of her curiosity should arrive.

The father also resolved to do his part by the child in securing him a good education; and, with the view that it should commence with the first dawnings of reason, Dominie Sampson was easily induced to renounce his public profession of parish schoolmaster, make his constant residence at the Place, and, in consideration of a sum not quite equal to the wages of a footman even at that time, to undertake to communicate to the future Laird of Ellangowan all the erudition which he had, and all the graces and accomplishments which--he had not indeed, but which he had never discovered that he wanted. In this arrangement the Laird found also his private advantage, securing the constant benefit of a patient auditor, to whom he told his stories when they were alone, and at whose expense he could break a sly jest when he had company.

About four years after this time a great commotion took place in the county where Ellangowan is situated.

Those who watched the signs of the times had long been of opinion that a change of ministry was about to take place; and at length, after a due proportion of hopes, fears, and delays, rumours from good authority and bad authority, and no authority at all; after

some clubs had drank Up with this statesman and others Down with him; after riding, and running, and posting, and addressing, and counter-addressing, and proffers of lives and fortunes, the blow was at length struck, the administration of the day was dissolved, and parliament, as a natural consequence, was dissolved also.

Sir Thomas Kittlecourt, like other members in the same situation, posted down to his county, and met but an indifferent reception. He was a partizan of the old administration; and the friends of the new had already set about an active canvass in behalf of John Featherhead, Esq., who kept the best hounds and hunters in the shire. Among others who joined the standard of revolt was Gilbert Glossin, writer in--, agent for the Laird of Ellangowan. This honest gentleman had either been refused some favour by the old member, or, what is as probable, he had got all that he had the most distant pretension to ask, and could only look to the other side for fresh advancement. Mr. Glossin had a vote upon Ellangowan's property; and he was now determined that his patron should have one also, there being no doubt which side Mr. Bertram would embrace in the contest. He easily persuaded Ellangowan that it would be creditable to him to take the field at the head of as strong a party as possible; and immediately went to work, making votes, as every Scotch lawyer knows how, by splitting and subdividing the superiorities upon this ancient and once powerful barony. These were so extensive that, by dint of clipping and paring here, adding and eking there, and creating over-lords upon all the estate which Bertram held of the crown, they advanced at the day of contest at the head of ten as good men of parchment as ever took the oath of trust and possession. This strong reinforcement turned the dubious day of battle. The principal and his agent divided the honour; the reward fell to the latter exclusively. Mr. Gilbert Glossin was made clerk of the peace, and Godfrey Bertram had his name inserted in a new commission of justices, issued immediately upon the sitting of the parliament.

This had been the summit of Mr. Bertram's ambition; not that he liked either the trouble or the responsibility of the office, but he thought it was a dignity to which he

was well entitled, and that it had been withheld from him by malice prepense. But there is an old and true Scotch proverb, ‘Fools should not have chapping sticks’; that is, weapons of offence. Mr. Bertram was no sooner possessed of the judicial authority which he had so much longed for than he began to exercise it with more severity than mercy, and totally belied all the opinions which had hitherto been formed of his inert good-nature. We have read somewhere of a justice of peace who, on being nominated in the commission, wrote a letter to a bookseller for the statutes respecting his official duty in the following orthography--’Please send the ax relating to a gustus pease.’ No doubt, when this learned gentleman had possessed himself of the axe, he hewed the laws with it to some purpose. Mr. Bertram was not quite so ignorant of English grammar as his worshipful predecessor; but Augustus Pease himself could not have used more indiscriminately the weapon unwarily put into his hand.

In good earnest, he considered the commission with which he had been entrusted as a personal mark of favour from his sovereign; forgetting that he had formerly thought his being deprived of a privilege, or honour, common to those of his rank was the result of mere party cabal. He commanded his trusty aid-de-camp, Dominie Sampson, to read aloud the commission; and at the first words, ‘The King has been pleased to appoint’--’Pleased!’ he exclaimed in a transport of gratitude; ‘honest gentleman! I’m sure he cannot be better pleased than I am.’

Accordingly, unwilling to confine his gratitude to mere feelings or verbal expressions, he gave full current to the new-born zeal of office, and endeavoured to express his sense of the honour conferred upon him by an unmitigated activity in the discharge of his duty. New brooms, it is said, sweep clean; and I myself can bear witness that, on the arrival of a new housemaid, the ancient, hereditary, and domestic spiders who have spun their webs over the lower division of my bookshelves (consisting chiefly of law and divinity) during the peaceful reign of her predecessor, fly at full speed before the probationary inroads of the new mercenary. Even so the Laird of Ellangowan

ruthlessly commenced his magisterial reform, at the expense of various established and superannuated pickers and stealers who had been his neighbours for half a century. He wrought his miracles like a second Duke Humphrey; and by the influence of the beadle's rod caused the lame to walk, the blind to see, and the palsied to labour. He detected poachers, black-fishers, orchard-breakers, and pigeon-shooters; had the applause of the bench for his reward, and the public credit of an active magistrate.

All this good had its rateable proportion of evil. Even an admitted nuisance of ancient standing should not be abated without some caution. The zeal of our worthy friend now involved in great distress sundry personages whose idle and mendicant habits his own lachesse had contributed to foster, until these habits had become irreclaimable, or whose real incapacity for exertion rendered them fit objects, in their own phrase, for the charity of all well-disposed Christians. The 'long-remembered beggar,' who for twenty years had made his regular rounds within the neighbourhood, received rather as an humble friend than as an object of charity, was sent to the neighbouring workhouse. The decrepit dame, who travelled round the parish upon a hand-barrow, circulating from house to house like a bad shilling, which every one is in haste to pass to his neighbour,--she, who used to call for her bearers as loud, or louder, than a traveller demands post-horses,--even she shared the same disastrous fate. The 'daft Jock,' who, half knave, half idiot, had been the sport of each succeeding race of village children for a good part of a century, was remitted to the county bridewell, where, secluded from free air and sunshine, the only advantages he was capable of enjoying, he pined and died in the course of six months. The old sailor, who had so long rejoiced the smoky rafters of every kitchen in the country by singing 'Captain Ward' and 'Bold Admiral Benbow,' was banished from the county for no better reason than that he was supposed to speak with a strong Irish accent. Even the annual rounds of the pedlar were abolished by the Justice, in his hasty zeal for the administration of rural police.

These things did not pass without notice and censure. We are not made of wood or stone, and the things which connect themselves with our hearts and habits cannot, like bark or lichen, be rent away without our missing them. The farmer's dame lacked her usual share of intelligence, perhaps also the self-applause which she had felt while distributing the awmous (alms), in shape of a gowpen (handful) of oatmeal, to the mendicant who brought the news. The cottage felt inconvenience from interruption of the petty trade carried on by the itinerant dealers. The children lacked their supply of sugarplums and toys; the young women wanted pins, ribbons, combs, and ballads; and the old could no longer barter their eggs for salt, snuff, and tobacco. All these circumstances brought the busy Laird of Ellangowan into discredit, which was the more general on account of his former popularity. Even his lineage was brought up in judgment against him. They thought 'naething of what the like of Greenside, or Burnville, or Viewforth might do, that were strangers in the country; but Ellangowan! that had been a name amang them since the Mirk Monanday, and lang before--HIM to be grinding the puir at that rate! They ca'd his grandfather the Wicked Laird; but, though he was whiles fractious aneuch, when he got into roving company and had ta'en the drap drink, he would have scorned to gang on at this gate. Na, na, the muckle chumlay in the Auld Place reeked like a killogie in his time, and there were as mony puir folk riving at the banes in the court, and about the door, as there were gentles in the ha'. And the leddy, on ilka Christmas night as it came round, gae twelve siller pennies to ilka puir body about, in honour of the twelve apostles like. They were fond to ca' it papistrie; but I think our great folk might take a lesson frae the papists whiles. They gie another sort o' help to puir folk than just dinging down a saxpence in the brod on the Sabbath, and kilting, and scourging, and drumming them a' the sax days o' the week besides.'

Such was the gossip over the good twopenny in every ale-house within three or four miles of Ellangowan, that being about the diameter of the orbit in which our friend Godfrey Bertram, Esq., J. P., must be considered as the principal luminary. Still greater scope was given to evil tongues by the removal of a colony of gipsies, with one of whom

our reader is somewhat acquainted, and who had for a great many years enjoyed their chief settlement upon the estate of Ellangowan.

CHAPTER VII

Come, princes of the ragged regiment,
You of the blood! PRIGS, my most upright lord,
And these, what name or title e'er they bear,
JARKMAN, or PATRICO, CRANKE or CLAPPER-DUDGEON,
PRATER or ABRAM-MAN--I speak of all.

Beggar's Bush.

Although the character of those gipsy tribes which formerly inundated most of the nations of Europe, and which in some degree still subsist among them as a distinct people, is generally understood, the reader will pardon my saying a few words respecting their situation in Scotland.

It is well known that the gipsies were at an early period acknowledged as a separate and independent race by one of the Scottish monarchs, and that they were less favourably distinguished by a subsequent law, which rendered the character of gipsy equal in the judicial balance to that of common and habitual thief, and prescribed his punishment accordingly. Notwithstanding the severity of this and other statutes, the fraternity prospered amid the distresses of the country, and received large accessions from among those whom famine, oppression, or the sword of war had deprived of the ordinary means of subsistence. They lost in a great measure by this intermixture the

national character of Egyptians, and became a mingled race, having all the idleness and predatory habits of their Eastern ancestors, with a ferocity which they probably borrowed from the men of the north who joined their society. They travelled in different bands, and had rules among themselves, by which each tribe was confined to its own district. The slightest invasion of the precincts which had been assigned to another tribe produced desperate skirmishes, in which there was often much blood shed.

The patriotic Fletcher of Saltoun drew a picture of these banditti about a century ago, which my readers will peruse with astonishment:--

'There are at this day in Scotland (besides a great many poor families very meanly provided for by the church boxes, with others who, by living on bad food, fall into various diseases) two hundred thousand people begging from door to door. These are not only no way advantageous, but a very grievous burden to so poor a country. And though the number of them be perhaps double to what it was formerly, by reason of this present great distress, yet in all times there have been about one hundred thousand of those vagabonds, who have lived without any regard or subjection either to the laws of the land or even those of God and nature . . . No magistrate could ever discover, or be informed, which way one in a hundred of these wretches died, or that ever they were baptized. Many murders have been discovered among them; and they are not only a most unspeakable oppression to poor tenants (who, if they give not bread or some kind of provision to perhaps forty such villains in one day, are sure to be insulted by them), but they rob many poor people who live in houses distant from any neighbourhood. In years of plenty, many thousands of them meet together in the mountains, where they feast and riot for many days; and at country weddings, markets, burials, and other the like public occasions, they are to be seen, both man and woman, perpetually drunk, cursing, blaspheming, and fighting together.'

Notwithstanding the deplorable picture presented in this extract, and which Fletcher himself, though the energetic and eloquent friend of freedom, saw no better mode of

correcting than by introducing a system of domestic slavery, the progress of time, and increase both of the means of life and of the power of the laws, gradually reduced this dreadful evil within more narrow bounds. The tribes of gipsies, jockies, or cairds--for by all these denominations such banditti were known--became few in number, and many were entirely rooted out. Still, however, a sufficient number remained to give, occasional alarm and constant vexation. Some rude handicrafts were entirely resigned to these itinerants, particularly the art of trencher-making, of manufacturing horn-spoons, and the whole mystery of the tinker. To these they added a petty trade in the coarse sorts of earthenware. Such were their ostensible means of livelihood. Each tribe had usually some fixed place of rendezvous, which they occasionally occupied and considered as their standing camp, and in the vicinity of which they generally abstained from depredation. They had even talents and accomplishments, which made them occasionally useful and entertaining. Many cultivated music with success; and the favourite fiddler or piper of a district was often to be found in a gipsy town. They understood all out-of-door sports, especially otter-hunting, fishing, or finding game. They bred the best and boldest terriers, and sometimes had good pointers for sale. In winter the women told fortunes, the men showed tricks of legerdemain; and these accomplishments often helped to while away a weary or stormy evening in the circle of the 'farmer's ha'.' The wildness of their character, and the indomitable pride with which they despised all regular labour, commanded a certain awe, which was not diminished by the consideration that these strollers were a vindictive race, and were restrained by no check, either of fear or conscience, from taking desperate vengeance upon those who had offended them. These tribes were, in short, the pariahs of Scotland, living like wild Indians among European settlers, and, like them, judged of rather by their own customs, habits, and opinions, than as if they had been members of the civilised part of the community. Some hordes of them yet remain, chiefly in such situations as afford a ready escape either into a waste country or into another Jurisdiction. Nor are the features of their character much softened. Their numbers, however, are so greatly diminished that,

instead of one hundred thousand, as calculated by Fletcher, it would now perhaps be impossible to collect above five hundred throughout all Scotland.

A tribe of these itinerants, to whom Meg Merrilies appertained, had long been as stationary as their habits permitted in a glen upon the estate of Ellangowan. They had there erected a few huts, which they denominated their 'city of refuge,' and where, when not absent on excursions, they harboured unmolested, as the crows that roosted in the old ash-trees around them. They had been such long occupants that they were considered in some degree as proprietors of the wretched shealings which they inhabited. This protection they were said anciently to have repaid by service to the Laird in war, or more frequently, by infesting or plundering the lands of those neighbouring barons with whom he chanced to be at feud. Latterly their services were of a more pacific nature. The women spun mittens for the lady, and knitted boot-hose for the Laird, which were annually presented at Christmas with great form. The aged sibyls blessed the bridal bed of the Laird when he married, and the cradle of the heir when born. The men repaired her ladyship's cracked china, and assisted the Laird in his sporting parties, wormed his dogs, and cut the ears of his terrier puppies. The children gathered nuts in the woods, and cranberries in the moss, and mushrooms on the pastures, for tribute to the Place. These acts of voluntary service, and acknowledgments of dependence, were rewarded by protection on some occasions, connivance on others, and broken victuals, ale, and brandy when circumstances called for a display of generosity; and this mutual intercourse of good offices, which had been carried on for at least two centuries, rendered the inhabitants of Derncleugh a kind of privileged retainers upon the estate of Ellangowan. 'The knaves' were the Laird's 'exceeding good friends'; and he would have deemed himself very ill used if his countenance could not now and then have borne them out against the law of the country and the local magistrate. But this friendly union was soon to be dissolved.

The community of Derncleugh, who cared for no rogues but their own, were wholly without alarm at the severity of the Justice's proceedings towards other itinerants. They had no doubt that he determined to suffer no mendicants or strollers in the country but what resided on his own property, and practised their trade by his immediate permission, implied or expressed. Nor was Mr. Bertram in a hurry to exert his newly-acquired authority at the expense of these old settlers. But he was driven on by circumstances.

At the quarter-sessions our new Justice was publicly upbraided by a gentleman of the opposite party in county politics, that, while he affected a great zeal for the public police, and seemed ambitious of the fame of an active magistrate, he fostered a tribe of the greatest rogues in the country, and permitted them to harbour within a mile of the house of Ellangowan. To this there was no reply, for the fact was too evident and well known. The Laird digested the taunt as he best could, and in his way home amused himself with speculations on the easiest method of ridding himself of these vagrants, who brought a stain upon his fair fame as a magistrate. Just as he had resolved to take the first opportunity of quarrelling with the pariahs of Derncleugh, a cause of provocation presented itself.

Since our friend's advancement to be a conservator of the peace, he had caused the gate at the head of his avenue, which formerly, having only one hinge, remained at all times hospitably open--he had caused this gate, I say, to be newly hung and handsomely painted. He had also shut up with paling, curiously twisted with furze, certain holes in the fences adjoining, through which the gipsy boys used to scramble into the plantations to gather birds' nests, the seniors of the village to make a short cut from one point to another, and the lads and lasses for evening rendezvous--all without offence taken or leave asked. But these halcyon days were now to have an end, and a minatory inscription on one side of the gate intimated 'prosecution according to law' (the painter had spelt it 'persecution'--l'un vaut bien l'autre) to all who should be found trespassing

on these inclosures. On the other side, for uniformity's sake, was a precautionary annunciation of spring-guns and man-traps of such formidable powers that, said the rubrick, with an emphatic nota bene--'if a man goes in they will break a horse's leg.'

In defiance of these threats, six well-grown gipsy boys and girls were riding cock-horse upon the new gate, and plaiting may-flowers, which it was but too evident had been gathered within the forbidden precincts. With as much anger as he was capable of feeling, or perhaps of assuming, the Laird commanded them to descend;--they paid no attention to his mandate: he then began to pull them down one after another;--they resisted, passively at least, each sturdy bronzed varlet making himself as heavy as he could, or climbing up as fast as he was dismounted.

The Laird then called in the assistance of his servant, a surly fellow, who had immediate recourse to his horsewhip. A few lashes sent the party a-scampering; and thus commenced the first breach of the peace between the house of Ellangowan and the gipsies of Derncleugh.

The latter could not for some time imagine that the war was real; until they found that their children were horsewhipped by the grieve when found trespassing; that their asses were poinded by the ground-officer when left in the plantations, or even when turned to graze by the roadside, against the provision of the turnpike acts; that the constable began to make curious inquiries into their mode of gaining a livelihood, and expressed his surprise that the men should sleep in the hovels all day, and be abroad the greater part of the night.

When matters came to this point, the gipsies, without scruple, entered upon measures of retaliation. Ellangowan's hen-roosts were plundered, his linen stolen from the lines or bleaching-ground, his fishings poached, his dogs kidnapped, his growing trees cut or barked. Much petty mischief was done, and some evidently for the mischief's sake. On the other hand, warrants went forth, without mercy, to pursue, search for, take, and apprehend; and, notwithstanding their dexterity, one or two of the depredators were

unable to avoid conviction. One, a stout young fellow, who sometimes had gone to sea a-fishing, was handed over to the captain of the impress service at D--; two children were soundly flogged, and one Egyptian matron sent to the house of correction.

Still, however, the gipsies made no motion to leave the spot which they had so long inhabited, and Mr. Bertram felt an unwillingness to deprive them of their ancient ‘city of refuge’; so that the petty warfare we have noticed continued for several months, without increase or abatement of hostilities on either side.

zaid n. adwan

CHAPTER VIII

So the red Indian, by Ontario’s side,
Nursed hardy on the brindled panther’s hide,
As fades his swarthy race, with anguish sees
The white man’s cottage rise beneath the trees;
He leaves the shelter of his native wood,
He leaves the murmur of Ohio’s flood,
And forward rushing in indignant grief,
Where never foot has trod the fallen leaf,
He bends his course where twilight reigns sublime.
O’er forests silent since the birth of time.

SCENES OF INFANCY.

In tracing the rise and progress of the Scottish Maroon war, we must not omit to mention that years had rolled on, and that little Harry Bertram, one of the hardiest and most lively children that ever made a sword and grenadier’s cap of rushes, now

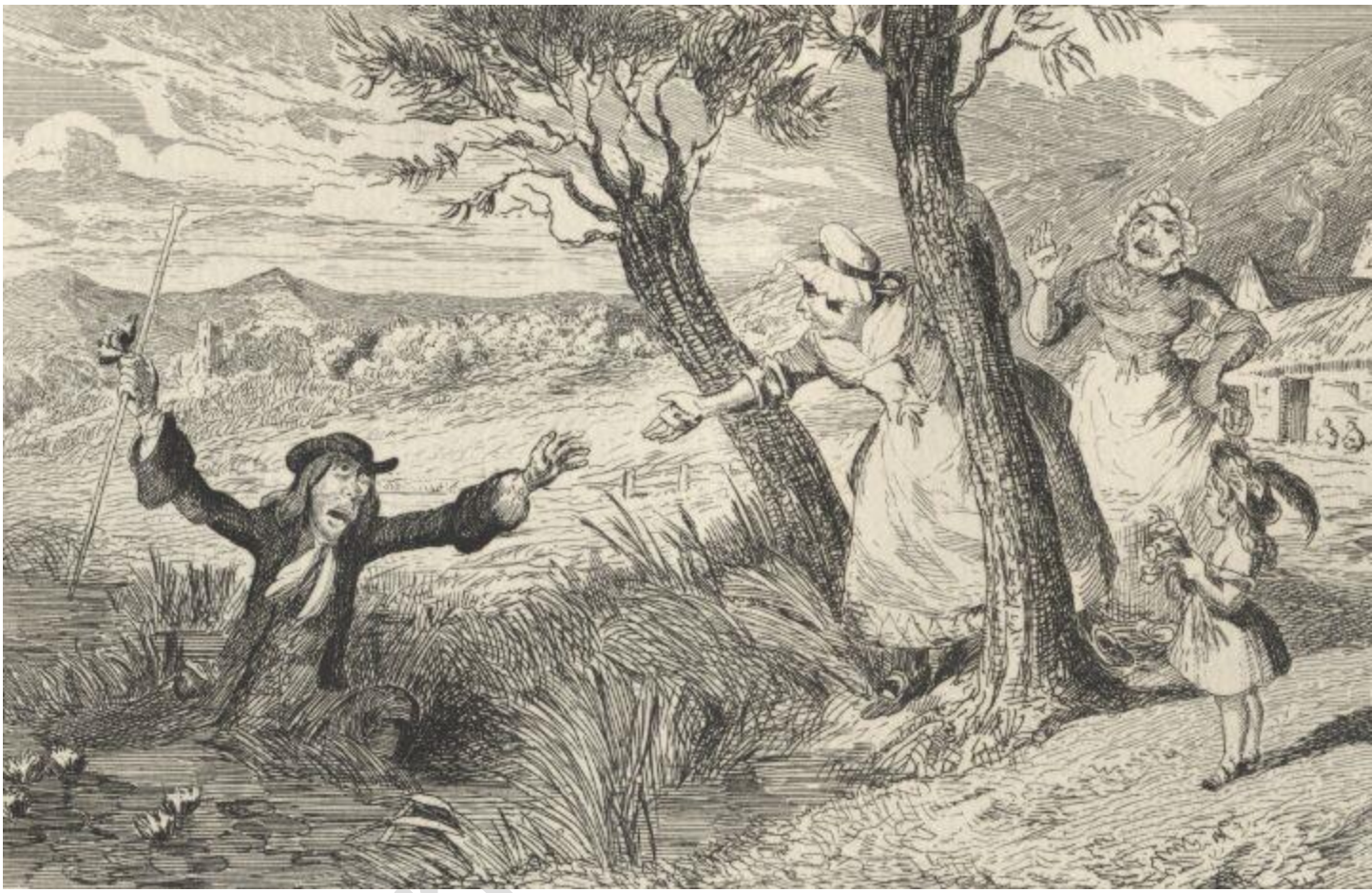
approached his fifth revolving birthday. A hardihood of disposition, which early developed itself, made him already a little wanderer; he was well acquainted with every patch of lea ground and dingle around Ellangowan, and could tell in his broken language upon what baulks grew the bonniest flowers, and what copse had the ripest nuts. He repeatedly terrified his attendants by clambering about the ruins of the old castle, and had more than once made a stolen excursion as far as the gipsy hamlet.

On these occasions he was generally brought back by Meg Merrilies, who, though she could not be prevailed upon to enter the Place of Ellangowan after her nephew had been given up to the press-gang, did not apparently extend her resentment to the child. On the contrary, she often contrived to waylay him in his walks, sing him a gipsy song, give him a ride upon her jackass, and thrust into his pocket a piece of gingerbread or a red-cheeked apple. This woman's ancient attachment to the family, repelled and checked in every other direction, seemed to rejoice in having some object on which it could yet repose and expand itself. She prophesied a hundred times, 'that young Mr. Harry would be the pride o' the family, and there hadna been sic a sprout frae the auld aik since the death of Arthur Mac-Dingawaie, that was killed in the battle o' the Bloody Bay; as for the present stick, it was good for nothing but fire-wood.' On one occasion, when the child was ill, she lay all night below the window, chanting a rhyme which she believed sovereign as a febrifuge, and could neither be prevailed upon to enter the house nor to leave the station she had chosen till she was informed that the crisis was over.

The affection of this woman became matter of suspicion, not indeed to the Laird, who was never hasty in suspecting evil, but to his wife, who had indifferent health and poor spirits. She was now far advanced in a second pregnancy, and, as she could not walk abroad herself, and the woman who attended upon Harry was young and thoughtless, she prayed Dominie Sampson to undertake the task of watching the boy in his rambles, when he should not be otherwise accompanied. The Dominie loved his young charge, and was enraptured with his own success in having already brought him so far in his

learning as to spell words of three syllables. The idea of this early prodigy of erudition being carried off by the gipsies, like a second Adam Smith,[Footnote: The father of Economical Philosophy was, when a child, actually carried off by gipsies, and remained some hours in their possession.] was not to be tolerated; and accordingly, though the charge was contrary to all his habits of life, he readily undertook it, and might be seen stalking about with a mathematical problem in his head, and his eye upon a child of five years old, whose rambles led him into a hundred awkward situations. Twice was the Dominie chased by a cross-grained cow, once he fell into the brook crossing at the stepping-stones, and another time was bogged up to the middle in the slough of Lochend, in attempting to gather a water-lily for the young Laird. It was the opinion of the village matrons who relieved Sampson on the latter occasion, 'that the Laird might as weel trust the care o' his bairn to a potatoe bogle'; but the good Dominie bore all his disasters with gravity and serenity equally imperturbable. 'Pro-di-gi-ous!' was the only ejaculation they ever extorted from the much-enduring man.

zaid n. adwan



ENLARGE

The Laird had by this time determined to make root-and-branch work with the Maroons of Derncleugh. The old servants shook their heads at his proposal, and even Dominie Sampson ventured upon an indirect remonstrance. As, however, it was couched in the oracular phrase, ‘Ne moveas Camerinam,’ neither the allusion, nor the language in which it was expressed, were calculated for Mr. Bertram’s edification, and matters proceeded against the gipsies in form of law. Every door in the hamlet was chalked by the ground-officer, in token of a formal warning to remove at next term. Still, however, they showed no symptoms either of submission or of compliance. At length the term-day, the fatal Martinmas, arrived, and violent measures of ejection were

resorted to. A strong posse of peace-officers, sufficient to render all resistance vain, charged the inhabitants to depart by noon; and, as they did not obey, the officers, in terms of their warrant, proceeded to unroof the cottages, and pull down the wretched doors and windows--a summary and effectual mode of ejection still practised in some remote parts of Scotland when a tenant proves refractory. The gipsies for a time beheld the work of destruction in sullen silence and inactivity; then set about saddling and loading their asses, and making preparations for their departure. These were soon accomplished, where all had the habits of wandering Tartars; and they set forth on their journey to seek new settlements, where their patrons should neither be of the quorum nor custos rotulorum.

Certain qualms of feeling had deterred Ellangowan from attending in person to see his tenants expelled. He left the executive part of the business to the officers of the law, under the immediate direction of Frank Kennedy, a supervisor, or riding-officer, belonging to the excise, who had of late become intimate at the Place, and of whom we shall have more to say in the next chapter. Mr. Bertram himself chose that day to make a visit to a friend at some distance. But it so happened, notwithstanding his precautions, that he could not avoid meeting his late tenants during their retreat from his property.

It was in a hollow way, near the top of a steep ascent, upon the verge of the Ellangowan estate, that Mr. Bertram met the gipsy procession. Four or five men formed the advanced guard, wrapped in long loose great-coats that hid their tall slender figures, as the large slouched hats, drawn over their brows, concealed their wild features, dark eyes, and swarthy faces. Two of them carried long fowling-pieces, one wore a broadsword without a sheath, and all had the Highland dirk, though they did not wear that weapon openly or ostentatiously. Behind them followed the train of laden asses, and small carts or TUMBLERS, as they were called in that country, on which were laid the decrepit and the helpless, the aged and infant part of the exiled community. The women in their red cloaks and straw hats, the elder children with bare heads and bare

feet, and almost naked bodies, had the immediate care of the little caravan. The road was narrow, running between two broken banks of sand, and Mr. Bertram's servant rode forward, smacking his whip with an air of authority, and motioning to the drivers to allow free passage to their betters. His signal was unattended to. He then called to the men who lounged idly on before, 'Stand to your beasts' heads, and make room for the Laird to pass.'

'He shall have his share of the road,' answered a male gipsy from under his slouched and large-brimmed hat, and without raising his face, 'and he shall have nae mair; the highway is as free to our cuddies as to his gelding.'

The tone of the man being sulky, and even menacing, Mr. Bertram thought it best to put his dignity in his pocket, and pass by the procession quietly, on such space as they chose to leave for his accommodation, which was narrow enough. To cover with an appearance of indifference his feeling of the want of respect with which he was treated, he addressed one of the men, as he passed him without any show of greeting, salute, or recognition--'Giles Baillie,' he said, 'have you heard that your son Gabriel is well?' (The question respected the young man who had been pressed.)

'If I had heard otherwise,' said the old man, looking up with a stern and menacing countenance, 'you should have heard of it too.' And he plodded on his way, tarrying no further question. [Footnote: This anecdote is a literal fact.] When the Laird had pressed on with difficulty among a crowd of familiar faces, which had on all former occasions marked his approach with the reverence due to that of a superior being, but in which he now only read hatred and contempt, and had got clear of the throng, he could not help turning his horse, and looking back to mark the progress of their march. The group would have been an excellent subject for the pencil of Calotte. The van had already reached a small and stunted thicket, which was at the bottom of the hill, and which gradually hid the line of march until the last stragglers disappeared.

zaidn.adwan

His sensations were bitter enough. The race, it is true, which he had thus summarily dismissed from their ancient place of refuge, was idle and vicious; but had he endeavoured to render them otherwise? They were not more irregular characters now than they had been while they were admitted to consider themselves as a sort of subordinate dependents of his family; and ought the mere circumstance of his becoming a magistrate to have made at once such a change in his conduct towards them? Some means of reformation ought at least to have been tried before sending seven families at once upon the wide world, and depriving them of a degree of countenance which withheld them at least from atrocious guilt. There was also a natural yearning of heart on parting with so many known and familiar faces; and to this feeling Godfrey Bertram was peculiarly accessible, from the limited qualities of his mind, which sought its principal amusements among the petty objects around him. As he was about to turn his horse's head to pursue his journey, Meg Merrilies, who had lagged behind the troop, unexpectedly presented herself.

She was standing upon one of those high precipitous banks which, as we before noticed, overhung the road, so that she was placed considerably higher than Ellangowan, even though he was on horseback; and her tall figure, relieved against the clear blue sky, seemed almost of supernatural stature. We have noticed that there was in her general attire, or rather in her mode of adjusting it, somewhat of a foreign costume, artfully adopted perhaps for the purpose of adding to the effect of her spells and predictions, or perhaps from some traditional notions respecting the dress of her ancestors. On this occasion she had a large piece of red cotton cloth rolled about her head in the form of a turban, from beneath which her dark eyes flashed with uncommon lustre. Her long and tangled black hair fell in elf-locks from the folds of this singular head-gear. Her attitude was that of a sibyl in frenzy, and she stretched out in her right hand a sapling bough which seemed just pulled.

Zaid M. Adwan

‘I’ll be d--d,’ said the groom, ‘if she has not been cutting the young ashes in the dukit park!’ The Laird made no answer, but continued to look at the figure which was thus perched above his path.

zaid n. adwan

‘Ride your ways,’ said the gipsy, ‘ride your ways, Laird of Ellangowan; ride your ways, Godfrey Bertram! This day have ye quenched seven smoking hearths; see if the fire in your ain parlour burn the blyther for that. Ye have riven the thack off seven cottar houses; look if your ain roof-tree stand the faster. Ye may stable your stirks in the shealings at Derncleugh; see that the hare does not couch on the hearthstane at Ellangowan. Ride your ways, Godfrey Bertram; what do ye glower after our folk for? There’s thirty hearts there that wad hae wanted bread ere ye had wanted sunkets, and spent their life-blood ere ye had scratched your finger. Yes; there’s thirty yonder, from the auld wife of an hundred to the babe that was born last week, that ye have turned out o’ their bits o’ bields, to sleep with the tod and the blackcock in the muirs! Ride your ways, Ellangowan. Our bairns are hinging at our weary backs; look that your braw cradle at hame be the fairer spread up; not that I am wishing ill to little Harry, or to the babe that’s yet to be born--God forbid--and make them kind to the poor, and better folk than their father! And now, ride e’en your ways; for these are the last words ye’ll ever hear Meg Merrilies speak, and this is the last reise that I’ll ever cut in the bonny woods of Ellangowan.’

So saying, she broke the sapling she held in her hand, and flung it into the road. Margaret of Anjou, bestowing on her triumphant foes her keen-edged malediction, could not have turned from them with a gesture more proudly contemptuous. The Laird was clearing his voice to speak, and thrusting his hand in his pocket to find a half-crown; the gipsy waited neither for his reply nor his donation, but strode down the hill to overtake the caravan.

Ellangowan rode pensively home; and it was remarkable that he did not mention this interview to any of his family. The groom was not so reserved; he told the story at great

length to a full audience in the kitchen, and concluded by swearing, that ‘if ever the devil spoke by the mouth of a woman, he had spoken by that of Meg Merrilies that blessed day.’

CHAPTER IX

Paint Scotland greeting ower her thrissle,
Her mutchkin stoup as toom’s a whistle,
And d--n’d excisemen in a bustle,
Seizing a stell,
Triumphant crushin’t like a mussel,
Or lampit shell

BURNS.

During the period of Mr. Bertram’s active magistracy, he did not forget the affairs of the revenue. Smuggling, for which the Isle of Man then afforded peculiar facilities, was general, or rather universal, all along the southwestern coast of Scotland. Almost all the common people were engaged in these practices; the gentry connived at them, and the officers of the revenue were frequently discountenanced in the exercise of their duty by those who should have protected them.

There was at this period, employed as a riding-officer or supervisor, in that part of the country a certain Francis Kennedy, already named in our narrative--a stout, resolute, and active man, who had made seizures to a great amount, and was proportionally hated by those who had an interest in the fair trade, as they called the pursuit of these

contraband adventurers. This person was natural son to a gentleman of good family, owing to which circumstance, and to his being of a jolly, convivial disposition, and singing a good song, he was admitted to the occasional society of the gentlemen of the country, and was a member of several of their clubs for practising athletic games, at which he was particularly expert.

At Ellangowan Kennedy was a frequent and always an acceptable guest. His vivacity relieved Mr. Bertram of the trouble of thought, and the labour which it cost him to support a detailed communication of ideas; while the daring and dangerous exploits which he had undertaken in the discharge of his office formed excellent conversation. To all these revenue adventures did the Laird of Ellangowan seriously incline, and the amusement which he derived from Kennedy's society formed an excellent reason for countenancing and assisting the narrator in the execution of his invidious and hazardous duty.

'Frank Kennedy,' he said, 'was a gentleman, though on the wrang side of the blanket; he was connected with the family of Ellangowan through the house of Glengubble. The last Laird of Glengubble would have brought the estate into the Ellangowan line; but, happening to go to Harrigate, he there met with Miss Jean Hadaway--by the by, the Green Dragon at Harrigate is the best house of the twa--but for Frank Kennedy, he's in one sense a gentleman born, and it's a shame not to support him against these blackguard smugglers.'

After this league had taken place between judgment and execution, it chanced that Captain Dirk Hatteraick had landed a cargo of spirits and other contraband goods upon the beach not far from Ellangowan, and, confiding in the indifference with which the Laird had formerly regarded similar infractions of the law, he was neither very anxious to conceal nor to expedite the transaction. The consequence was that Mr. Frank Kennedy, armed with a warrant from Ellangowan, and supported by some of the Laird's people who knew the country, and by a party of military, poured down upon the kegs,

bales, and bags, and after a desperate affray, in which severe wounds were given and received, succeeded in clapping the broad arrow upon the articles, and bearing them off in triumph to the next custom-house. Dirk Hatteraick vowed, in Dutch, German, and English, a deep and full revenge, both against the gauger and his abettors; and all who knew him thought it likely he would keep his word.

A few days after the departure of the gipsy tribe, Mr. Bertram asked his lady one morning at breakfast whether this was not little Harry's birthday.

'Five years auld exactly, this blessed day,' answered the lady; 'so we may look into the English gentleman's paper.'

Mr. Bertram liked to show his authority in trifles. 'No, my dear, not till to-morrow. The last time I was at quarter-sessions the sheriff told us that DIES--that dies inceptus--in short, you don't understand Latin, but it means that a term-day is not begun till it's ended.'

'That sounds like nonsense, my dear.'

'May be so, my dear; but it may be very good law for all that. I am sure, speaking of term-days, I wish, as Frank Kennedy says, that Whitsunday would kill Martinmas and be hanged for the murder; for there I have got a letter about that interest of Jenny Cairns's, and deil a tenant's been at the Place yet wi' a boddle of rent, nor will not till Candlemas. But, speaking of Frank Kennedy, I daresay he'll be here the day, for he was away round to Wigton to warn a king's ship that's lying in the bay about Dirk Hatteraick's lugger being on the coast again, and he'll be back this day; so we'll have a bottle of claret and drink little Harry's health.'

'I wish,' replied the lady, 'Frank Kennedy would let Dirk Hatteraick alane. What needs he make himself mair busy than other folk? Cannot he sing his sang, and take his drink, and draw his salary, like Collector Snail, honest man, that never fashes ony body? And I wonder at you, Laird, for meddling and making. Did we ever want to send for tea

or brandy frae the borough-town when Dirk Hatteraick used to come quietly into the bay?'

'Mrs. Bertram, you know nothing of these matters. Do you think it becomes a magistrate to let his own house be made a receptacle for smuggled goods? Frank Kennedy will show you the penalties in the act, and ye ken yoursell they used to put their run goods into the Auld Place of Ellangowan up by there.'

'Oh dear, Mr. Bertram, and what the waur were the wa's and the vault o' the auld castle for having a whin kegs o' brandy in them at an orra time? I am sure ye were not obliged to ken ony thing about it; and what the waur was the King that the lairds here got a soup o' drink and the ladies their drap o' tea at a reasonable rate?--it's a shame to them to pit such taxes on them!--and was na I much the better of these Flanders head and pinners that Dirk Hatteraick sent me a' the way from Antwerp? It will be lang or the King sends me ony thing, or Frank Kennedy either. And then ye would quarrel with these gipsies too! I expect every day to hear the barnyard's in a low.'

'I tell you once more, my dear, you don't understand these things--and there's Frank Kennedy coming galloping up the avenue.'

'Aweel! aweel! Ellangowan,' said the lady, raising her voice as the Laird left the room, 'I wish ye may understand them yoursell, that's a'!'

From this nuptial dialogue the Laird joyfully escaped to meet his faithful friend, Mr. Kennedy, who arrived in high spirits. 'For the love of life, Ellangowan,' he said, 'get up to the castle! you'll see that old fox Dirk Hatteraick, and his Majesty's hounds in full cry after him.' So saying, he flung his horse's bridle to a boy, and ran up the ascent to the old castle, followed by the Laird, and indeed by several others of the family, alarmed by the sound of guns from the sea, now distinctly heard.

On gaining that part of the ruins which commanded the most extensive outlook, they saw a lugger, with all her canvass crowded, standing across the bay, closely pursued by a sloop of war, that kept firing upon the chase from her bows, which the lugger returned

with her stern-chasers. ‘They’re but at long bowls yet,’ cried Kennedy, in great exultation, ‘but they will be closer by and by. D--n him, he’s starting his cargo! I see the good Nantz pitching overboard, keg after keg! That’s a d--d ungenteel thing of Mr. Hatteraick, as I shall let him know by and by. Now, now! they’ve got the wind of him! that’s it, that’s it! Hark to him! hark to him! Now, my dogs! now, my dogs! Hark to Ranger, hark!’

‘I think,’ said the old gardener to one of the maids, ‘the ganger’s fie,’ by which word the common people express those violent spirits which they think a presage of death.

Meantime the chase continued. The lugger, being piloted with great ability, and using every nautical shift to make her escape, had now reached, and was about to double, the headland which formed the extreme point of land on the left side of the bay, when a ball having hit the yard in the slings, the mainsail fell upon the deck. The consequence of this accident appeared inevitable, but could not be seen by the spectators; for the vessel, which had just doubled the headland, lost steerage, and fell out of their sight behind the promontory. The sloop of war crowded all sail to pursue, but she had stood too close upon the cape, so that they were obliged to wear the vessel for fear of going ashore, and to make a large tack back into the bay, in order to recover sea-room enough to double the headland.

‘They ‘ll lose her, by--, cargo and lugger, one or both,’ said Kennedy; ‘I must gallop away to the Point of Warroch (this was the headland so often mentioned), and make them a signal where she has drifted to on the other side. Good-bye for an hour, Ellangowan; get out the gallon punch-bowl and plenty of lemons. I’ll stand for the French article by the time I come back, and we’ll drink the young Laird’s health in a bowl that would swim the collector’s yawl.’ So saying, he mounted his horse and galloped off.

About a mile from the house, and upon the verge of the woods, which, as we have said, covered a promontory terminating in the cape called the Point of Warroch,

Kennedy met young Harry Bertram, attended by his tutor, Dominie Sampson. He had often promised the child a ride upon his galloway; and, from singing, dancing, and playing Punch for his amusement, was a particular favourite. He no sooner came scampering up the path, than the boy loudly claimed his promise; and Kennedy, who saw no risk, in indulging him, and wished to tease the Dominie, in whose visage he read a remonstrance, caught up Harry from the ground, placed him before him, and continued his route; Sampson's 'Peradventure, Master Kennedy-' being lost in the clatter of his horse's feet. The pedagogue hesitated a moment whether he should go after them; but Kennedy being a person in full confidence of the family, and with whom he himself had no delight in associating, 'being that he was addicted unto profane and scurrilous jests,' he continued his own walk at his own pace, till he reached the Place of Ellangowan.

The spectators from the ruined walls of the castle were still watching the sloop of war, which at length, but not without the loss of considerable time, recovered sea-room enough to weather the Point of Warroch, and was lost to their sight behind that wooded promontory. Some time afterwards the discharges of several cannon were heard at a distance, and, after an interval, a still louder explosion, as of a vessel blown up, and a cloud of smoke rose above the trees and mingled with the blue sky. All then separated on their different occasions, auguring variously upon the fate of the smuggler, but the majority insisting that her capture was inevitable, if she had not already gone to the bottom.

'It is near our dinner-time, my dear,' said Mrs. Bertram to her husband; 'will it be lang before Mr. Kennedy comes back?'

'I expect him every moment, my dear,' said the Laird; 'perhaps he is bringing some of the officers of the sloop with him.'

'My stars, Mr. Bertram! why did not ye tell me this before, that we might have had the large round table? And then, they're a' tired o' saut meat, and, to tell you the plain

truth, a rump o' beef is the best part of your dinner. And then I wad have put on another gown, and ye wadna have been the waur o' a clean neck-cloth yoursell. But ye delight in surprising and hurrying one. I am sure I am no to baud out for ever against this sort of going on; but when folk's missed, then they are moaned.'

'Pshaw, pshaw! deuce take the beef, and the gown, and table, and the neck-cloth! we shall do all very well. Where's the Dominie, John? (to a servant who was busy about the table) where's the Dominie and little Harry?'

'Mr. Sampson's been at hame these twa hours and mair, but I dinna think Mr. Harry cam hame wi' him.'

'Not come hame wi' him?' said the lady; 'desire Mr. Sampson to step this way directly.'

'Mr. Sampson,' said she, upon his entrance, 'is it not the most extraordinary thing in this world wide, that you, that have free up-putting--bed, board, and washing--and twelve pounds sterling a year, just to look after that boy, should let him out of your sight for twa or three hours?'

Sampson made a bow of humble acknowledgment at each pause which the angry lady made in her enumeration of the advantages of his situation, in order to give more weight to her remonstrance, and then, in words which we will not do him the injustice to imitate, told how Mr. Francis Kennedy 'had assumed spontaneously the charge of Master Harry, in despite of his remonstrances in the contrary.'

'I am very little obliged to Mr. Francis Kennedy for his pains,' said the lady, peevishly; 'suppose he lets the boy drop from his horse, and lames him? or suppose one of the cannons comes ashore and kills him? or suppose--'

'Or suppose, my dear,' said Ellangowan, 'what is much more likely than anything else, that they have gone aboard the sloop or the prize, and are to come round the Point with the tide?'

'And then they may be drowned,' said the lady.

‘Verily,’ said Sampson, ‘I thought Mr. Kennedy had returned an hour since. Of a surety I deemed I heard his horse’s feet.’

‘That,’ said John, with a broad grin, ‘was Grizzel chasing the humble-cow out of the close.’

Sampson coloured up to the eyes, not at the implied taunt, which he would never have discovered, or resented if he had, but at some idea which crossed his own mind. ‘I have been in an error,’ he said; ‘of a surety I should have tarried for the babe.’ So saying, he snatched his bone-headed cane and hat, and hurried away towards Warroch wood faster than he was ever known to walk before or after.

The Laird lingered some time, debating the point with the lady. At length he saw the sloop of war again make her appearance; but, without approaching the shore, she stood away to the westward with all her sails set, and was soon out of sight. The lady’s state of timorous and fretful apprehension was so habitual that her fears went for nothing with her lord and master; but an appearance of disturbance and anxiety among the servants now excited his alarm, especially when he was called out of the room, and told in private that Mr. Kennedy’s horse had come to the stable door alone, with the saddle turned round below its belly and the reins of the bridle broken; and that a farmer had informed them in passing that there was a smuggling lugger burning like a furnace on the other side of the Point of Warroch, and that, though he had come through the wood, he had seen or heard nothing of Kennedy or the young Laird, ‘only there was Dominie Sampson gaun rampauging about like mad, seeking for them.’

All was now bustle at Ellangowan. The Laird and his servants, male and female, hastened to the wood of Warroch. The tenants and cottagers in the neighbourhood lent their assistance, partly out of zeal, partly from curiosity. Boats were manned to search the sea-shore, which, on the other side of the Point, rose into high and indented rocks. A vague suspicion was entertained, though too horrible to be expressed, that the child might have fallen from one of these cliffs.

zain.adwan

The evening had begun to close when the parties entered the wood, and dispersed different ways in quest of the boy and his companion. The darkening of the atmosphere, and the hoarse sighs of the November wind through the naked trees, the rustling of the withered leaves which strewed the glades, the repeated halloos of the different parties, which often drew them together in expectation of meeting the objects of their search, gave a cast of dismal sublimity to the scene.

At length, after a minute and fruitless investigation through the wood, the searchers began to draw together into one body, and to compare notes. The agony of the father grew beyond concealment, yet it scarcely equalled the anguish of the tutor. 'Would to God I had died for him!' the affectionate creature repeated, in notes of the deepest distress. Those who were less interested rushed into a tumultuary discussion of chances and possibilities. Each gave his opinion, and each was alternately swayed by that of the others. Some thought the objects of their search had gone aboard the sloop; some that they had gone to a village at three miles' distance; some whispered they might have been on board the lugger, a few planks and beams of which the tide now drifted ashore.

At this instant a shout was heard from the beach, so loud, so shrill, so piercing, so different from every sound which the woods that day had rung to, that nobody hesitated a moment to believe that it conveyed tidings, and tidings of dreadful import. All hurried to the place, and, venturing without scruple upon paths which at another time they would have shuddered to look at, descended towards a cleft of the rock, where one boat's crew was already landed. 'Here, sirs, here! this way, for God's sake! this way! this way!' was the reiterated cry. Ellangowan broke through the throng which had already assembled at the fatal spot, and beheld the object of their terror. It was the dead body of Kennedy. At first sight he seemed to have perished by a fall from the rocks, which rose above the spot on which he lay in a perpendicular precipice of a hundred feet above the beach. The corpse was lying half in, half out of the water; the advancing tide, raising the arm and stirring the clothes, had given it at some distance the

appearance of motion, so that those who first discovered the body thought that life remained. But every spark had been long extinguished.

‘My bairn! my bairn!’ cried the distracted father, ‘where can he be?’ A dozen mouths were opened to communicate hopes which no one felt. Some one at length mentioned--the gipsies! In a moment Ellangowan had reascended the cliffs, flung himself upon the first horse he met, and rode furiously to the huts at Derncleugh. All was there dark and desolate; and, as he dismounted to make more minute search, he stumbled over fragments of furniture which had been thrown out of the cottages, and the broken wood and thatch which had been pulled down by his orders. At that moment the prophecy, or anathema, of Meg Merrilies fell heavy on his mind. ‘You have stripped the thatch from seven cottages; see that the roof-tree of your own house stand the surer!’

‘Restore,’ he cried, ‘restore my bairn! bring me back my son, and all shall be forgot and forgiven!’ As he uttered these words in a sort of frenzy, his eye caught a glimmering of light in one of the dismantled cottages; it was that in which Meg Merrilies formerly resided. The light, which seemed to proceed from fire, glimmered not only through the window, but also through the rafters of the hut where the roofing had been torn off.

He flew to the place; the entrance was bolted. Despair gave the miserable father the strength of ten men; he rushed against the door with such violence that it gave way before the momentum of his weight and force. The cottage was empty, but bore marks of recent habitation: there was fire on the hearth, a kettle, and some preparation for food. As he eagerly gazed around for something that might confirm his hope that his child yet lived, although in the power of those strange people, a man entered the hut.

It was his old gardener. ‘O sir!’ said the old man, ‘such a night as this I trusted never to live to see! ye maun come to the Place directly!’

‘Is my boy found? is he alive? have ye found Harry Bertram? Andrew, have ye found Harry Bertram?’

‘No, sir; but-’

‘Then he is kidnapped! I am sure of it, Andrew! as sure as that I tread upon earth! She has stolen him; and I will never stir from this place till I have tidings of my bairn!’

‘O, but ye maun come hame, sir! ye maun come hame! We have sent for the Sheriff, and we’ll seta watch here a’ night, in case the gipsies return; but YOU--ye maun come hame, sir, for my lady’s in the dead-thraw.’

Bertram turned a stupefied and unmeaning eye on the messenger who uttered this calamitous news; and, repeating the words ‘in the dead-thraw!’ as if he could not comprehend their meaning, suffered the old man to drag him towards his horse. During the ride home he only said, ‘Wife and bairn baith--mother and son baith,--sair, sair to abide!’

It is needless to dwell upon the new scene of agony which awaited him. The news of Kennedy’s fate had been eagerly and incautiously communicated at Ellangowan, with the gratuitous addition, that, doubtless, ‘he had drawn the young Laird over the craig with him, though the tide had swept away the child’s body; he was light, puir thing, and would flee farther into the surf.’

Mrs. Bertram heard the tidings; she was far advanced in her pregnancy; she fell into the pains of premature labour, and, ere Ellangowan had recovered his agitated faculties, so as to comprehend the full distress of his situation, he was the father of a female infant, and a widower.

zaid n. adwan

CHAPTER X

But see, his face is black and full of blood;
His eye-balls farther out than when he lived,
Staring full ghastly like a strangled man,
His hair uprear'd, his nostrils stretch d with struggling,
His hands abroad display'd, as one that grasp'd
And tugg'd for life, and was by strength subdued

Henry VI, Part II

The Sheriff-depute of the county arrived at Ellangowan next morning by daybreak. To this provincial magistrate the law of Scotland assigns judicial powers of considerable extent, and the task of inquiring into all crimes committed within his jurisdiction, the apprehension and commitment of suspected persons, and so forth. [Footnote: The Scottish sheriff discharges, on such occasions as that now mentioned, pretty much the same duty as a coroner.]

The gentleman who held the office in the shire of---at the time of this catastrophe was well born and well educated; and, though somewhat pedantic and professional in his habits, he enjoyed general respect as an active and intelligent magistrate. His first employment was to examine all witnesses whose evidence could throw light upon this mysterious event, and make up the written report, proces verbal, or precognition, as it is technically called, which the practice of Scotland has substituted for a coroner's inquest. Under the Sheriff's minute and skilful inquiry, many circumstances appeared which seemed incompatible with the original opinion that Kennedy had accidentally fallen from the cliffs. We shall briefly detail some of these.

The body had been deposited in a neighbouring fisher-hut, but without altering the condition in which it was found. This was the first object of the Sheriff's examination. Though fearfully crushed and mangled by the fall from such a height, the corpse was found to exhibit a deep cut in the head, which, in the opinion of a skilful surgeon, must have been inflicted by a broadsword or cutlass. The experience of this gentleman

discovered other suspicious indications. The face was much blackened, the eyes distorted, and the veins of the neck swelled. A coloured handkerchief, which the unfortunate man had worn round his neck, did not present the usual appearance, but was much loosened, and the knot displaced and dragged extremely tight; the folds were also compressed, as if it had been used as a means of grappling the deceased, and dragging him perhaps to the precipice.

On the other hand, poor Kennedy's purse was found untouched; and, what seemed yet more extraordinary, the pistols which he usually carried when about to encounter any hazardous adventure were found in his pockets loaded. This appeared particularly strange, for he was known and dreaded by the contraband traders as a man equally fearless and dexterous in the use of his weapons, of which he had given many signal proofs. The Sheriff inquired whether Kennedy was not in the practice of carrying any other arms? Most of Mr. Bertram's servants recollected that he generally had a couteau de chasse, or short hanger, but none such was found upon the dead body; nor could those who had seen him on the morning of the fatal day take it upon them to assert whether he then carried that weapon or not.

The corpse afforded no other indicia respecting the fate of Kennedy; for, though the clothes were much displaced and the limbs dreadfully fractured, the one seemed the probable, the other the certain, consequences of such a fall. The hands of the deceased were clenched fast, and full of turf and earth; but this also seemed equivocal.

The magistrate then proceeded to the place where the corpse was first discovered, and made those who had found it give, upon the spot, a particular and detailed account of the manner in which it was lying. A large fragment of the rock appeared to have accompanied, or followed, the fall of the victim from the cliff above. It was of so solid and compact a substance that it had fallen without any great diminution by splintering; so that the Sheriff was enabled, first, to estimate the weight by measurement, and then to calculate, from the appearance of the fragment, what portion of it had been bedded

into the cliff from which it had descended. This was easily detected by the raw appearance of the stone where it had not been exposed to the atmosphere. They then ascended the cliff, and surveyed the place from whence the stony fragment had fallen. It seemed plain, from the appearance of the bed, that the mere weight of one man standing upon the projecting part of the fragment, supposing it in its original situation, could not have destroyed its balance and precipitated it, with himself, from the cliff. At the same time, it appeared to have lain so loose that the use of a lever, or the combined strength of three or four men, might easily have hurled it from its position. The short turf about the brink of the precipice was much trampled, as if stamped by the heels of men in a mortal struggle, or in the act of some violent exertion. Traces of the same kind, less visibly marked, guided the sagacious investigator to the verge of the copsewood, which in that place crept high up the bank towards the top of the precipice.

With patience and perseverance they traced these marks into the thickest part of the copse, a route which no person would have voluntarily adopted, unless for the purpose of concealment. Here they found plain vestiges of violence and struggling, from space to space. Small boughs were torn down, as if grasped by some resisting wretch who was dragged forcibly along; the ground, where in the least degree soft or marshy, showed the print of many feet; there were vestiges also which might be those of human blood. At any rate it was certain that several persons must have forced their passage among the oaks, hazels, and underwood with which they were mingled; and in some places appeared traces as if a sack full of grain, a dead body, or something of that heavy and solid description, had been dragged along the ground. In one part of the thicket there was a small swamp, the clay of which was whitish, being probably mixed with marl. The back of Kennedy's coat appeared besmeared with stains of the same colour.

At length, about a quarter of a mile from the brink of the fatal precipice, the traces conducted them to a small open space of ground, very much trampled, and plainly stained with blood, although withered leaves had been strewed upon the spot, and other

means hastily taken to efface the marks, which seemed obviously to have been derived from a desperate affray. On one side of this patch of open ground was found the sufferer's naked hanger, which seemed to have been thrown into the thicket; on the other, the belt and sheath, which appeared to have been hidden with more leisurely care and precaution.

The magistrate caused the footprints which marked this spot to be carefully measured and examined. Some corresponded to the foot of the unhappy victim; some were larger, some less; indicating that at least four or five men had been busy around him. Above all, here, and here only, were observed the vestiges of a child's foot; and as it could be seen nowhere else, and the hard horse-track which traversed the wood of Warroch was contiguous to the spot, it was natural to think that the boy might have escaped in that direction during the confusion. But, as he was never heard of, the Sheriff, who made a careful entry of all these memoranda, did not suppress his opinion, that the deceased had met with foul play, and that the murderers, whoever they were, had possessed themselves of the person of the child Harry Bertram.

Every exertion was now made to discover the criminals. Suspicion hesitated between the smugglers and the gipsies. The fate of Dirk Hatteraick's vessel was certain. Two men from the opposite side of Warroch Bay (so the inlet on the southern side of the Point of Warroch is called) had seen, though at a great distance, the lugger drive eastward, after doubling the headland, and, as they judged from her manoeuvres, in a disabled state. Shortly after, they perceived that she grounded, smoked, and finally took fire. She was, as one of them expressed himself, 'in a light low' (bright flame) when they observed a king's ship, with her colours up, heave in sight from behind the cape. The guns of the burning vessel discharged themselves as the fire reached them; and they saw her at length blow up with a great explosion. The sloop of war kept aloof for her own safety; and, after hovering till the other exploded, stood away southward under a press of sail. The Sheriff anxiously interrogated these men whether any boats had left

the vessel. They could not say, they had seen none; but they might have put off in such a direction as placed the burning vessel, and the thick smoke which floated landward from it, between their course and the witnesses' observation.

That the ship destroyed was Dirk Hatteraick's no one doubted. His lugger was well known on the coast, and had been expected just at this time. A letter from the commander of the king's sloop, to whom the Sheriff made application, put the matter beyond doubt; he sent also an extract from his log-book of the transactions of the day, which intimated their being on the outlook for a smuggling lugger, Dirk Hatteraick master, upon the information and requisition of Francis Kennedy, of his Majesty's excise service; and that Kennedy was to be upon the outlook on the shore, in case Hatteraick, who was known to be a desperate fellow, and had been repeatedly outlawed, should attempt to run his sloop aground. About nine o'clock A.M. they discovered a sail which answered the description of Hatteraick's vessel, chased her, and, after repeated signals to her to show colours and bring-to, fired upon her. The chase then showed Hamburgh colours and returned the fire; and a running fight was maintained for three hours, when, just as the lugger was doubling the Point of Warroch, they observed that the main-yard was shot in the slings, and that the vessel was disabled. It was not in the power of the man-of-war's men for some time to profit by this circumstance, owing to their having kept too much in shore for doubling the headland. After two tacks, they accomplished this, and observed the chase on fire and apparently deserted. The fire having reached some casks of spirits, which were placed on the deck, with other combustibles, probably on purpose, burnt with such fury that no boats durst approach the vessel, especially as her shotted guns were discharging one after another by the heat. The captain had no doubt whatever that the crew had set the vessel on fire and escaped in their boats. After watching the conflagration till the ship blew up, his Majesty's sloop, the Shark, stood towards the Isle of Man, with the purpose of intercepting the retreat of the smugglers, who, though they might conceal themselves

in the woods for a day or two, would probably take the first opportunity of endeavouring to make for this asylum. But they never saw more of them than is above narrated.

Such was the account given by William Pritchard, master and commander of his Majesty's sloop of war, Shark, who concluded by regretting deeply that he had not had the happiness to fall in with the scoundrels who had had the impudence to fire on his Majesty's flag, and with an assurance that, should he meet Mr. Dirk Hatteraick in any future cruise, he would not fail to bring him into port under his stern, to answer whatever might be alleged against him.

As, therefore, it seemed tolerably certain that the men on board the lugger had escaped, the death of Kennedy, if he fell in with them in the woods, when irritated by the loss of their vessel and by the share he had in it, was easily to be accounted for. And it was not improbable that to such brutal tempers, rendered desperate by their own circumstances, even the murder of the child, against whose father, as having become suddenly active in the prosecution of smugglers, Hatteraick was known to have uttered deep threats, would not appear a very heinous crime.

Against this hypothesis it was urged that a crew of fifteen or twenty men could not have lain hidden upon the coast, when so close a search took place immediately after the destruction of their vessel; or, at least, that if they had hid themselves in the woods, their boats must have been seen on the beach; that in such precarious circumstances, and when all retreat must have seemed difficult if not impossible, it was not to be thought that they would have all united to commit a useless murder for the mere sake of revenge. Those who held this opinion supposed either that the boats of the lugger had stood out to sea without being observed by those who were intent upon gazing at the burning vessel, and so gained safe distance before the sloop got round the headland; or else that, the boats being staved or destroyed by the fire of the Shark during the chase, the crew had obstinately determined to perish with the vessel. What gave some countenance to this supposed act of desperation was, that neither Dirk Hatteraick nor

any of his sailors, all well-known men in the fair trade, were again seen upon that coast, or heard of in the Isle of Man, where strict inquiry was made. On the other hand, only one dead body, apparently that of a seaman killed by a cannon-shot, drifted ashore. So all that could be done was to register the names, description, and appearance of the individuals belonging to the ship's company, and offer a reward for the apprehension of them, or any one of them, extending also to any person, not the actual murderer, who should give evidence tending to convict those who had murdered Francis Kennedy.

Another opinion, which was also plausibly supported, went to charge this horrid crime upon the late tenants of Derncleugh. They were known to have resented highly the conduct of the Laird of Ellangowan towards them, and to have used threatening expressions, which every one supposed them capable of carrying into effect. The kidnapping the child was a crime much more consistent with their habits than with those of smugglers, and his temporary guardian might have fallen in an attempt to protect him. Besides, it was remembered that Kennedy had been an active agent, two or three days before, in the forcible expulsion of these people from Derncleugh, and that harsh and menacing language had been exchanged between him and some of the Egyptian patriarchs on that memorable occasion.

The Sheriff received also the depositions of the unfortunate father and his servant, concerning what had passed at their meeting the caravan of gipsies as they left the estate of Ellangowan. The speech of Meg Merrilies seemed particularly suspicious. There was, as the magistrate observed in his law language, damnum minatum--a damage, or evil turn, threatened--and malum secutum--an evil of the very kind predicted shortly afterwards following. A young woman, who had been gathering nuts in Warroch wood upon the fatal day, was also strongly of opinion, though she declined to make positive oath, that she had seen Meg Merrilies--at least a woman of her remarkable size and appearance--start suddenly out of a thicket; she said she had called to her by name, but, as the figure turned from her and made no answer, she was uncertain if it were the gipsy

or her wraith, and was afraid to go nearer to one who was always reckoned, in the vulgar phrase, 'no canny.' This vague story received some corroboration from the circumstance of a fire being that evening found in the gipsy's deserted cottage. To this fact Ellangowan and his gardener bore evidence. Yet it seemed extravagant to suppose that, had this woman been accessory to such a dreadful crime, she would have returned, that very evening on which it was committed, to the place of all others where she was most likely to be sought after.

Meg Merrilies was, however, apprehended and examined. She denied strongly having been either at Derncleugh or in the wood of Warroch upon the day of Kennedy's death; and several of her tribe made oath in her behalf, that she had never quitted their encampment, which was in a glen about ten miles distant from Ellangowan. Their oaths were indeed little to be trusted to; but what other evidence could be had in the circumstances? There was one remarkable fact, and only one, which arose from her examination. Her arm appeared to be slightly wounded by the cut of a sharp weapon, and was tied up with a handkerchief of Harry Bertram's. But the chief of the horde acknowledged he had 'corrected her' that day with his whinger; she herself, and others, gave the same account of her hurt; and for the handkerchief, the quantity of linen stolen from Ellangowan during the last months of their residence on the estate easily accounted for it, without charging Meg with a more heinous crime.

It was observed upon her examination that she treated the questions respecting the death of Kennedy, or 'the gauger,' as she called him, with indifference; but expressed great and emphatic scorn and indignation at being supposed capable of injuring little Harry Bertram. She was long confined in jail, under the hope that something might yet be discovered to throw light upon this dark and bloody transaction. Nothing, however, occurred; and Meg was at length liberated, but under sentence of banishment from the county as a vagrant, common thief, and disorderly person. No traces of the boy could ever be discovered; and at length the story, after making much noise, was gradually

given up as altogether inexplicable, and only perpetuated by the name of 'The Gauger's Loup,' which was generally bestowed on the cliff from which the unfortunate man had fallen or been precipitated.

CHAPTER XI

ENTER TIME, AS CHORUS
I, that please some, try all, both joy and terror
Of good and bad; that make and unfold error,
Now take upon me, in the name of Time,
To use my wings Impute it not a crime
To me, or my swift passage, that I slide
O'er sixteen years, and leave the growth untried
Of that wide gap.

Winter's Tale.

Our narration is now about to make a large stride, and omit a space of nearly seventeen years; during which nothing occurred of any particular consequence with respect to the story we have undertaken to tell. The gap is a wide one; yet if the reader's experience in life enables him to look back on so many years, the space will scarce appear longer in his recollection than the time consumed in turning these pages.

It was, then, in the month of November, about seventeen years after the catastrophe related in the last chapter, that, during a cold and stormy night, a social group had closed around the kitchen-fire of the Gordon Arms at Kippletringan, a small but comfortable inn kept by Mrs. Mac-Candlish in that village. The conversation which passed among

them will save me the trouble of telling the few events occurring during this chasm in our history, with which it is necessary that the reader should be acquainted.

Mrs. Mac-Candlish, throned in a comfortable easychair lined with black leather, was regaling herself and a neighbouring gossip or two with a cup of genuine tea, and at the same time keeping a sharp eye upon her domestics, as they went and came in prosecution of their various duties and commissions. The clerk and precentor of the parish enjoyed at a little distance his Saturday night's pipe, and aided its bland fumigation by an occasional sip of brandy and water. Deacon Bearcliff, a man of great importance in the village, combined the indulgence of both parties: he had his pipe and his tea-cup, the latter being laced with a little spirits. One or two clowns sat at some distance, drinking their twopenny ale.

'Are ye sure the parlour's ready for them, and the fire burning clear, and the chimney no smoking?' said the hostess to a chambermaid.

She was answered in the affirmative. 'Ane wadna be uncivil to them, especially in their distress,' said she, turning to the Deacon.

'Assuredly not, Mrs. Mac-Candlish; assuredly not. I am sure ony sma' thing they might want frae my shop, under seven, or eight, or ten pounds, I would book them as readily for it as the first in the country. Do they come in the auld chaise?'

'I daresay no,' said the precentor; 'for Miss Bertram comes on the white powny ilka day to the kirk--and a constant kirk-keeper she is--and it's a pleasure to hear her singing the psalms, winsome young thing.'

'Ay, and the young Laird of Hazlewood rides hame half the road wi' her after sermon,' said one of the gossips in company. 'I wonder how auld Hazlewood likes that.'

'I kenna how he may like it now,' answered another of the tea-drinkers; 'but the day has been when Ellangowan wad hae liked as little to see his daughter taking up with their son.'

'Ay, has been,' answered the first, with somewhat of emphasis.

‘I am sure, neighbour Ovens,’ said the hostess, ‘the Hazlewoods of Hazlewood, though they are a very gude auld family in the county, never thought, till within these twa score o’ years, of evening themselves till the Ellangowans. Wow, woman, the Bertrams of Ellangowan are the auld Dingawaies lang syne. There is a sang about ane o’ them marrying a daughter of the King of Man; it begins--

Blythe Bertram’s ta’en him ower the faem,
To wed a wife, and bring her hame--

I daur say Mr. Skreigh can sing us the ballant.’

‘Gudewife,’ said Skreigh, gathering up his mouth, and sipping his tiff of brandy punch with great solemnity, ‘our talents were gien us to other use than to sing daft auld sangs sae near the Sabbath day.’

‘Hout fie, Mr. Skreigh; I’se warrant I hae heard you sing a blythe sang on Saturday at e’en before now. But as for the chaise, Deacon, it hasna been out of the coach-house since Mrs. Bertram died, that’s sixteen or seventeen years sin syne. Jock Jabos is away wi’ a chaise of mine for them; I wonder he’s no come back. It’s pit mirk; but there’s no an ill turn on the road but twa, and the brigg ower Warroch burn is safe eneugh, if he haud to the right side. But then there’s Heavieside Brae, that’s just a murder for post-cattle; but Jock kens the road brawly.’

A loud rapping was heard at the door.

‘That’s no them. I dinna hear the wheels. Grizzel, ye limmer, gang to the door.’

‘It’s a single gentleman,’ whined out Grizzel; ‘maun I take him into the parlour?’

‘Foul be in your feet, then; it’ll be some English rider. Coming without a servant at this time o’ night! Has the hostler ta’en the horse? Ye may light a spunk o’ fire in the red room.’

‘I wish, ma’am,’ said the traveller, entering the kitchen, ‘you would give me leave to warm myself here, for the night is very cold.’

His appearance, voice, and manner produced an instantaneous effect in his favour. He was a handsome, tall, thin figure, dressed in black, as appeared when he laid aside his riding-coat; his age might be between forty and fifty; his cast of features grave and interesting, and his air somewhat military. Every point of his appearance and address bespoke the gentleman. Long habit had given Mrs. Mac-Candlish an acute tact in ascertaining the quality of her visitors, and proportioning her reception accordingly:--

To every guest the appropriate speech was made,
And every duty with distinction paid;
Respectful, easy, pleasant, or polite--
'Your honour's servant!' 'Mister Smith, good-night.'

On the present occasion she was low in her courtesy and profuse in her apologies. The stranger begged his horse might be attended to: she went out herself to school the hostler.

'There was never a prettier bit o' horse-flesh in the stable o' the Gordon Arms,' said the man, which information increased the landlady's respect for the rider. Finding, on her return, that the stranger declined to go into another apartment (which, indeed, she allowed, would be but cold and smoky till the fire bleezed up), she installed her guest hospitably by the fireside, and offered what refreshment her house afforded.

'A cup of your tea, ma'am, if you will favour me.'

Mrs. Mac-Candlish bustled about, reinforced her teapot with hyson, and proceeded in her duties with her best grace. 'We have a very nice parlour, sir, and everything very agreeable for gentlefolks; but it's bespoke the night for a gentleman and his daughter that are going to leave this part of the country; ane of my chaises is gane for them, and will be back forthwith. They're no sae weel in the warld as they have been; but we're a' subject to ups and downs in this life, as your honour must needs ken,--but is not the tobacco-reek disagreeable to your honour?'

'By no means, ma'am; I am an old campaigner, and perfectly used to it. Will you permit me to make some inquiries about a family in this neighbourhood?'

The sound of wheels was now heard, and the landlady hurried to the door to receive her expected guests; but returned in an instant, followed by the postilion. ‘No, they canna come at no rate, the Laird’s sae ill.’

‘But God help them,’ said the landlady, ‘the morn’s the term, the very last day they can bide in the house; a’ thing’s to be roupit.’

‘Weel, but they can come at no rate, I tell ye; Mr. Bertram canna be moved.’

‘What Mr. Bertram?’ said the stranger; ‘not Mr. Bertram of Ellangowan, I hope?’

‘Just e’en that same, sir; and if ye be a friend o’ his, ye have come at a time when he’s sair bested.’

‘I have been abroad for many years,--is his health so much deranged?’

‘Ay, and his affairs an’ a’,’ said the Deacon; ‘the creditors have entered into possession o’ the estate, and it’s for sale; and some that made the maist by him--I name nae names, but Mrs. Mac-Candlish kens wha I mean (the landlady shook her head significantly)--they’re sairest on him e’en now. I have a sma’ matter due myself, but I would rather have lost it than gane to turn the auld man out of his house, and him just dying.’

‘Ay, but,’ said the parish clerk, ‘Factor Glossin wants to get rid of the auld Laird, and drive on the sale, for fear the heir-male should cast up upon them; for I have heard say, if there was an heir-male they couldna sell the estate for auld Ellangowan’s debt.’

‘He had a son born a good many years ago,’ said the stranger; ‘he is dead, I suppose?’

‘Nae man can say for that,’ answered the clerk mysteriously.

‘Dead!’ said the Deacon, ‘I’se warrant him dead lang syne; he hasna been heard o’ these twenty years or thereby.’

‘I wot weel it’s no twenty years,’ said the landlady; ‘it’s no abune seventeen at the outside in this very month. It made an unco noise ower a’ this country; the bairn disappeared the very day that Supervisor Kennedy cam by his end. If ye kenn’d this

country lang syne, your honour wad maybe ken Frank Kennedy the Supervisor. He was a heartsome pleasant man, and company for the best gentlemen in the county, and muckle mirth he's made in this house. I was young then, sir, and newly married to Bailie Mac-Candlish, that's dead and gone (a sigh); and muckle fun I've had wi' the Supervisor. He was a daft dog. O, an he could hae hauden aff the smugglers a bit! but he was aye venturesome. And so ye see, sir, there was a king's sloop down in Wigton Bay, and Frank Kennedy, he behoved to have her up to chase Dirk Hatteraick's lugger--ye'll mind Dirk Hatteraick, Deacon? I daresay ye may have dealt wi' him--(the Deacon gave a sort of acquiescent nod and humph). He was a daring chield, and he fought his ship till she blew up like peelings of ingans; and Frank Kennedy, he had been the first man to board, and he was flung like a quarter of a mile off, and fell into the water below the rock at Warroch Point, that they ca' the Gauger's Loup to this day.'

'And Mr. Bertram's child,' said the stranger, 'what is all this to him?'

'Ou, sir, the bairn aye held an unco wark wi' the Supervisor; and it was generally thought he went on board the vessel alang wi' him, as bairns are aye forward to be in mischief.'

'No, no,' said the Deacon, 'ye're clean out there, Luckie; for the young Laird was stown away by a randy gipsy woman they ca'd Meg Merrilies--I mind her looks weel--in revenge for Ellangowan having gar'd her be drumm'd through Kippletringan for stealing a silver spoon.'

'If ye'll forgieme, Deacon,' said the precentor, 'ye're e'en as far wrang as the gudewife.'

'And what is your edition of the story, sir?' said the stranger, turning to him with interest.

'That's maybe no sae canny to tell,' said the precentor, with solemnity.

Upon being urged, however, to speak out, he preluded with two or three large puffs of tobacco-smoke, and out of the cloudy sanctuary which these whiffs formed around

him delivered the following legend, having cleared his voice with one or two hems, and imitating, as near as he could, the eloquence which weekly thundered over his head from the pulpit.

'What we are now to deliver, my brethren,--hem--hem,--I mean, my good friends,--was not done in a corner, and may serve as an answer to witch-advocates, atheists, and misbelievers of all kinds. Ye must know that the worshipful Laird of Ellangowan was not so preceese as he might have been in clearing his land of witches (concerning whom it is said, "Thou shalt not suffer a witch to live"), nor of those who had familiar spirits, and consulted with divination, and sorcery, and lots, which is the fashion with the Egyptians, as they ca' themsells, and other unhappy bodies, in this our country. And the Laird was three years married without having a family; and he was sae left to himsell, that it was thought he held ower muckle troking and communing wi' that Meg Merrilies, wha was the maist notorious witch in a' Galloway and Dumfries-shire baith.'

'Aweel, I wot there's something in that,' said Mrs. Mac-Candlish; 'I've kenn'd him order her twa glasses o' brandy in this very house.'

'Aweel, gudewife, then the less I lee. Sae the lady was wi' bairn at last, and in the night when she should have been delivered there comes to the door of the ha' house--the Place of Ellangowan as they ca'd--an ancient man, strangely habited, and asked for quarters. His head, and his legs, and his arms were bare, although it was winter time o' the year, and he had a grey beard three-quarters lang. Weel, he was admitted; and when the lady was delivered, he craved to know the very moment of the hour of the birth, and he went out and consulted the stars. And when he came back he tell'd the Laird that the Evil One wad have power over the knave-bairn that was that night born, and he charged him that the babe should be bred up in the ways of piety, and that he should aye hae a godly minister at his elbow to pray WI' the bairn and FOR him. And the aged man vanished away, and no man of this country ever saw mair o' him.'

‘Now, that will not pass,’ said the postilion, who, at a respectful distance, was listening to the conversation, ‘begging Mr. Skreigh’s and the company’s pardon; there was no sae mony hairs on the warlock’s face as there’s on Letter-Gae’s [Footnote: The precentor is called by Allan Ramsay, The letter-gae of haly rhyme.] ain at this moment, and he had as gude a pair o’ boots as a man need streik on his legs, and gloves too; and I should understand boots by this time, I think.’

‘Whisht, Jock,’ said the landlady.

‘Ay? and what do YE ken o’ the matter, friend Jabos?’ said the precentor, contemptuously.

‘No muckle, to be sure, Mr. Skreigh, only that I lived within a penny-stane cast o’ the head o’ the avenue at Ellangowan, when a man cam jingling to our door that night the young Laird was born, and my mother sent me, that was a hafflin callant, to show the stranger the gate to the Place, which, if he had been sic a warlock, he might hae kenn’d himsell, ane wad think; and he was a young, weel-faured, weel-dressed lad, like an Englishman. And I tell ye he had as gude a hat, and boots, and gloves, as ony gentleman need to have. To be sure he DID gie an awesome glance up at the auld castle, and there WAS some spae-wark gaed on, I aye heard that; but as for his vanishing, I held the stirrup mysell when he gaed away, and he gied me a round half-crown. He was riding on a haick they ca’d Souple Sam, it belanged to the George at Dumfries; it was a blood-bay beast, very ill o’ the spavin; I hae seen the beast baith before and since.’

‘Aweel, aweel, Jock,’ answered Mr. Skreigh, with a tone of mild solemnity, ‘our accounts differ in no material particulars; but I had no knowledge that ye had seen the man. So ye see, my friends, that this soothsayer having prognosticated evil to the boy, his father engaged a godly minister to be with him morn and night.’

‘Ay, that was him they ca’d Dominie Sampson,’ said the postilion.

‘He’s but a dumb dog that,’ observed the Deacon; ‘I have heard that he never could preach five words of a sermon endlang, for as lang as he has been licensed.’

‘Weel, but,’ said the precentor, waving his hand, as if eager to retrieve the command of the discourse, ‘he waited on the young Laird by night and day. Now it chanced, when the bairn was near five years auld, that the Laird had a sight of his errors, and determined to put these Egyptians aff his ground, and he caused them to remove; and that Frank Kennedy, that was a rough, swearing fellow, he was sent to turn them off. And he cursed and damned at them, and they swure at him; and that Meg Merrilies, that was the maist powerfu’ with the Enemy of Mankind, she as gude as said she would have him, body and soul, before three days were ower his head. And I have it from a sure hand, and that’s ane wha saw it, and that’s John Wilson, that was the Laird’s groom, that Meg appeared to the Laird as he was riding hame from Singleside, over Gibbie’s know, and threatened him wi’ what she wad do to his family; but whether it was Meg, or something waur in her likeness, for it seemed bigger than ony mortal creature, John could not say.’

‘Aweel,’ said the postilion, ‘it might be sae, I canna say against it, for I was not in the country at the time; but John Wilson was a blustering kind of chield, without the heart of a sprug.’

‘And what was the end of all this?’ said the stranger, with some impatience.

‘Ou, the event and upshot of it was, sir,’ said the precentor, ‘that while they were all looking on, beholding a king’s ship chase a smuggler, this Kennedy suddenly brake away frae them without ony reason that could be descried--ropes nor tows wad not hae held him--and made for the wood of Warroch as fast as his beast could carry him; and by the way he met the young Laird and his governor, and he snatched up the bairn, and swure, if HE was bewitched, the bairn should have the same luck as him; and the minister followed as fast as he could, and almaist as fast as them, for he was wonderfully swift of foot, and he saw Meg the witch, or her master in her similitude, rise suddenly out of the ground, and claught the bairn suddenly out of the ganger’s arms; and then he rampauged and drew his sword, for ye ken a fie man and a cusser fearsna the deil.’

‘I believe that’s very true,’ said the postilion.

‘So, sir, she grippit him, and clodded him like a stane from the sling ower the craigs of Warroch Head, where he was found that evening; but what became of the babe, frankly I cannot say. But he that was minister here then, that’s now in a better place, had an opinion that the bairn was only conveyed to fairy-land for a season.’

The stranger had smiled slightly at some parts of this recital, but ere he could answer the clatter of a horse’s hoofs was heard, and a smart servant, handsomely dressed, with a cockade in his hat, bustled into the kitchen, with ‘Make a little room, good people’; when, observing the stranger, he descended at once into the modest and civil domestic, his hat sunk down by his side, and he put a letter into his master’s hands. ‘The family at Ellangowan, sir, are in great distress, and unable to receive any visits.’

‘I know it,’ replied his master. ‘And now, madam, if you will have the goodness to allow me to occupy the parlour you mentioned, as you are disappointed of your guests--’

‘Certainly, sir,’ said Mrs. Mac-Candlish, and hastened to light the way with all the imperative bustle which an active landlady loves to display on such occasions.

‘Young man,’ said the Deacon to the servant, filling a glass, ‘ye’ll no be the waur o’ this, after your ride.’

‘Not a feather, sir; thank ye, your very good health, sir.’

‘And wha may your master be, friend?’

‘What, the gentleman that was here? that’s the famous Colonel Mannering, sir, from the East Indies.’

‘What, him we read of in the newspapers?’

‘Ay, ay, just the same. It was he relieved Cuddieburn, and defended Chingalore, and defeated the great Mahratta chief, Ram Jolli Bundleman. I was with him in most of his campaigns.’

Zaid H. Adwan

‘Lord safe us,’ said the landlady; ‘I must go see what he would have for supper; that I should set him down here!’

‘O, he likes that all the better, mother. You never saw a plainer creature in your life than our old Colonel; and yet he has a spice of the devil in him too.’

The rest of the evening’s conversation below stairs tending little to edification, we shall, with the reader’s leave, step up to the parlour.

CHAPTER XII

Reputation! that’s man’s idol
Set up against God, the Maker of all laws,
Who hath commanded us we should not kill,
And yet we say we must, for Reputation!
What honest man can either fear his own,
Or else will hurt another’s reputation?
Fear to do base unworthy things is valour;
If they be done to us, to suffer them
Is valour too.

BEN JONSON.

The Colonel was walking pensively up and down the parlour when the officious landlady reentered to take his commands. Having given them in the manner he thought would be most acceptable ‘for the good of the house,’ he begged to detain her a moment.

‘I think,’ he said, ‘madam, if I understood the good people right, Mr. Bertram lost his son in his fifth year?’

zaid n. adwan

‘O ay, sir, there’s nae doubt o’ that, though there are mony idle clashes about the way and manner, for it’s an auld story now, and everybody tells it, as we were doing, their ain way by the ingleside. But lost the bairn was in his fifth year, as your honour says, Colonel; and the news being rashly tell’d to the leddy, then great with child, cost her her life that samyn night; and the Laird never throve after that day, but was just careless of everything, though, when his daughter Miss Lucy grew up, she tried to keep order within doors; but what could she do, poor thing? So now they’re out of house and hauld.’

‘Can you recollect, madam, about what time of the year the child was lost?’ The landlady, after a pause and some recollection, answered, ‘she was positive it was about this season’; and added some local recollections that fixed the date in her memory as occurring about the beginning of November 17--.

The stranger took two or three turns round the room in silence, but signed to Mrs. Mac-Candlish not to leave it.

‘Did I rightly apprehend,’ he said, ‘that the estate of Ellangowan is in the market?’

‘In the market? It will be sell’d the morn to the highest bidder--that’s no the morn, Lord help me! which is the Sabbath, but on Monday, the first free day; and the furniture and stocking is to be roupit at the same time on the ground. It’s the opinion of the haill country that the sale has been shamefully forced on at this time, when there’s sae little money stirring in Scotland wi’ this weary American war, that somebody may get the land a bargain. Deil be in them, that I should say sae!’--the good lady’s wrath rising at the supposed injustice.

‘And where will the sale take place?’

‘On the premises, as the advertisement says; that’s at the house of Ellangowan, your honour, as I understand it.’

‘And who exhibits the title-deeds, rent-roll, and plan?’

‘A very decent man, sir; the sheriff-substitute of the county, who has authority from the Court of Session. He’s in the town just now, if your honour would like to see him; and he can tell you mair about the loss of the bairn than ony body, for the sheriff-depute (that’s his principal, like) took much pains to come at the truth o’ that matter, as I have heard.’

‘And this gentleman’s name is--’

‘Mac-Morlan, sir; he’s a man o’ character, and weel spoken o’.’

‘Send my compliments--Colonel Mannering’s compliments to him, and I would be glad he would do me the pleasure of supping with me, and bring these papers with him; and I beg, good madam, you will say nothing of this to any one else.’

‘Me, sir? ne’er a word shall I say. I wish your honour (a courtesy), or ony honourable gentleman that’s fought for his country (another courtesy), had the land, since the auld family maun quit (a sigh), rather than that wily scoundrel Glossin, that’s risen on the ruin of the best friend he ever had. And now I think on’t, I’ll slip on my hood and pattens, and gang to Mr. Mac-Morlan mysell, he’s at hame e’en now; it’s hardly a step.’

‘Do so, my good landlady, and many thanks; and bid my servant step here with my portfolio in the meantime.’

In a minute or two Colonel Mannering was quietly seated with his writing materials before him. We have the privilege of looking over his shoulder as he writes, and we willingly communicate its substance to our readers. The letter was addressed to Arthur Mervyn, Esq., of Mervyn Hall, Llanbraithwaite, Westmoreland. It contained some account of the writer’s previous journey since parting with him, and then proceeded as follows:--

‘And now, why will you still upbraid me with my melancholy, Mervyn? Do you think, after the lapse of twenty-five years, battles, wounds, imprisonment, misfortunes of every description, I can be still the same lively, unbroken Guy Mannering who climbed Skiddaw with you, or shot grouse upon Crossfell? That you, who have

remained in the bosom of domestic happiness, experience little change, that your step is as light and your fancy as full of sunshine, is a blessed effect of health and temperament, cooperating with content and a smooth current down the course of life. But MY career has been one of difficulties and doubts and errors. From my infancy I have been the sport of accident, and, though the wind has often borne me into harbour, it has seldom been into that which the pilot destined. Let me recall to you--but the task must be brief--the odd and wayward fates of my youth, and the misfortunes of my manhood.

'The former, you will say, had nothing very appalling. All was not for the best; but all was tolerable. My father, the eldest son of an ancient but reduced family, left me with little, save the name of the head of the house, to the protection of his more fortunate brothers. They were so fond of me that they almost quarrelled about me. My uncle, the bishop, would have had me in orders, and offered me a living; my uncle, the merchant, would have put me into a counting-house, and proposed to give me a share in the thriving concern of Mannering and Marshall, in Lombard Street. So, between these two stools, or rather these two soft, easy, well-stuffed chairs of divinity and commerce, my unfortunate person slipped down, and pitched upon a dragoon saddle. Again, the bishop wished me to marry the niece and heiress of the Dean of Lincoln; and my uncle, the alderman, proposed to me the only daughter of old Sloethorn, the great wine-merchant, rich enough to play at span-counter with moidores and make thread-papers of bank-notes; and somehow I slipped my neck out of both nooses, and married--poor, poor Sophia Wellwood.

'You will say, my military career in India, when I followed my regiment there, should have given me some satisfaction; and so it assuredly has. You will remind me also, that if I disappointed the hopes of my guardians, I did not incur their displeasure; that the bishop, at his death, bequeathed me his blessing, his manuscript sermons, and a curious portfolio containing the heads of eminent divines of the church of England; and that my

uncle, Sir Paul Mannering, left me sole heir and executor to his large fortune. Yet this availeth me nothing; I told you I had that upon my mind which I should carry to my grave with me, a perpetual aloes in the draught of existence. I will tell you the cause more in detail than I had the heart to do while under your hospitable roof. You will often hear it mentioned, and perhaps with different and unfounded circumstances. I will therefore speak it out; and then let the event itself, and the sentiments of melancholy with which it has impressed me, never again be subject of discussion between us.

'Sophia, as you well know, followed me to India. She was as innocent as gay; but, unfortunately for us both, as gay as innocent. My own manners were partly formed by studies I had forsaken, and habits of seclusion not quite consistent with my situation as commandant of a regiment in a country where universal hospitality is offered and expected by every settler claiming the rank of a gentleman. In a moment of peculiar pressure (you know how hard we were sometimes run to obtain white faces to countenance our line-of-battle), a young man named Brown joined our regiment as a volunteer, and, finding the military duty more to his fancy than commerce, in which he had been engaged, remained with us as a cadet. Let me do my unhappy victim justice: he behaved with such gallantry on every occasion that offered that the first vacant commission was considered as his due. I was absent for some weeks upon a distant expedition; when I returned I found this young fellow established quite as the friend of the house, and habitual attendant of my wife and daughter. It was an arrangement which displeased me in many particulars, though no objection could be made to his manners or character. Yet I might have been reconciled to his familiarity in my family, but for the suggestions of another. If you read over--what I never dare open--the play of "Othello," you will have some idea of what followed--I mean of my motives; my actions, thank God! were less reprehensible. There was another cadet ambitious of the vacant situation. He called my attention to what he led me to term coquetry between my wife and this young man. Sophia was virtuous, but proud of her virtue; and, irritated by my jealousy, she was so imprudent as to press and encourage an intimacy which she

saw I disapproved and regarded with suspicion. Between Brown and me there existed a sort of internal dislike. He made an effort or two to overcome my prejudice; but, prepossessed as I was, I placed them to a wrong motive. Feeling himself repulsed, and with scorn, he desisted; and as he was without family and friends, he was naturally more watchful of the deportment of one who had both.

'It is odd with what torture I write this letter. I feel inclined, nevertheless, to protract the operation, just as if my doing so could put off the catastrophe which has so long embittered my life. But--it must be told, and it shall be told briefly.

'My wife, though no longer young, was still eminently handsome, and--let me say thus far in my own justification-she was fond of being thought so--I am repeating what I said before. In a word, of her virtue I never entertained a doubt; but, pushed by the artful suggestions of Archer, I thought she cared little for my peace of mind, and that the young fellow Brown paid his attentions in my despite, and in defiance of me. He perhaps considered me, on his part, as an oppressive aristocratic man, who made my rank in society and in the army the means of galling those whom circumstances placed beneath me. And if he discovered my silly jealousy, he probably considered the fretting me in that sore point of my character as one means of avenging the petty indignities to which I had it in my power to subject him. Yet an acute friend of mine gave a more harmless, or at least a less offensive, construction to his attentions, which he conceived to be meant for my daughter Julia, though immediately addressed to propitiate the influence of her mother. This could have been no very flattering or pleasing enterprise on the part of an obscure and nameless young man; but I should not have been offended at this folly as I was at the higher degree of presumption I suspected. Offended, however, I was, and in a mortal degree.

'A very slight spark will kindle a flame where everything lies open to catch it. I have absolutely forgot the proximate cause of quarrel, but it was some trifle which occurred at the card-table which occasioned high words and a challenge. We met in the morning

beyond the walls and esplanade of the fortress which I then commanded, on the frontiers of the settlement. This was arranged for Brown's safety, had he escaped. I almost wish he had, though at my own expense; but he fell by the first fire. We strove to assist him; but some of these looties, a species of native banditti who were always on the watch for prey, poured in upon us. Archer and I gained our horses with difficulty, and cut our way through them after a hard conflict, in the course of which he received some desperate wounds. To complete the misfortunes of this miserable day, my wife, who suspected the design with which I left the fortress, had ordered her palanquin to follow me, and was alarmed and almost made prisoner by another troop of these plunderers. She was quickly released by a party of our cavalry; but I cannot disguise from myself that the incidents of this fatal morning gave a severe shock to health already delicate. The confession of Archer, who thought himself dying, that he had invented some circumstances, and for his purposes put the worst construction upon others, and the full explanation and exchange of forgiveness with me which this produced, could not check the progress of her disorder. She died within about eight months after this incident, bequeathing me only the girl of whom Mrs. Mervyn is so good as to undertake the temporary charge. Julia was also extremely ill; so much so that I was induced to throw up my command and return to Europe, where her native air, time, and the novelty of the scenes around her have contributed to dissipate her dejection and restore her health.

'Now that you know my story, you will no longer ask me the reason of my melancholy, but permit me to brood upon it as I may. There is, surely, in the above narrative enough to embitter, though not to poison, the chalice which the fortune and fame you so often mention had prepared to regale my years of retirement.

'I could add circumstances which our old tutor would have quoted as instances of DAY FATALITY,--you would laugh were I to mention such particulars, especially as you know I put no faith in them. Yet, since I have come to the very house from which I now write, I have learned a singular coincidence, which, if I find it truly established

by tolerable evidence, will serve as hereafter for subject of curious discussion. But I will spare you at present, as I expect a person to speak about a purchase of property now open in this part of the country. It is a place to which I have a foolish partiality, and I hope my purchasing may be convenient to those who are parting with it, as there is a plan for buying it under the value. My respectful compliments to Mrs. Mervyn, and I will trust you, though you boast to be so lively a young gentleman, to kiss Julia for me. Adieu, dear Mervyn.--Thine ever, GUY MANNERING.'

Mr. Mac-Morlan now entered the room. The well-known character of Colonel Mannering at once disposed this gentleman, who was a man of intelligence and probity, to be open and confidential. He explained the advantages and disadvantages of the property. 'It was settled,' he said, 'the greater part of it at least, upon heirs-male, and the purchaser would have the privilege of retaining in his hands a large proportion of the price, in case of the reappearance, within a certain limited term, of the child who had disappeared.'

'To what purpose, then, force forward a sale?' said Mannering. Mac-Morlan smiled. 'Ostensibly,' he answered, 'to substitute the interest of money instead of the ill-paid and precarious rents of an unimproved estate; but chiefly it was believed, to suit the wishes and views of a certain intended purchaser, who had become a principal creditor, and forced himself into the management of the affairs by means best known to himself, and who, it was thought, would find it very convenient to purchase the estate without paying down the price.'

Mannering consulted with Mr. Mac-Morlan upon the steps for thwarting this unprincipled attempt. They then conversed long on the singular disappearance of Harry Bertram upon his fifth birthday, verifying thus the random prediction of Mannering, of which, however, it will readily be supposed he made no boast. Mr. Mac-Morlan was not himself in office when that incident took place; but he was well acquainted with all the circumstances, and promised that our hero should have them detailed by the sheriff-

depute himself, if, as he proposed, he should become a settler in that part of Scotland. With this assurance they parted, well satisfied with each other and with the evening's conference.

On the Sunday following, Colonel Mannering attended the parish church with great decorum. None of the Ellangowan family were present; and it was understood that the old Laird was rather worse than better. Jock Jabos, once more despatched for him, returned once more without his errand; but on the following day Miss Bertram hoped he might be removed.

CHAPTER XIII

They told me, by the sentence of the law,
They had commission to seize all thy fortune.
Here stood a ruffian with a horrid face,
Lording it o'er a pile of massy plate,
Tumbled into a heap for public sale;
There was another, making villainous jests
At thy undoing; he had ta'en possession
Of all thy ancient most domestic ornaments.

OTWAY.

Early next morning Mannering mounted his horse and, accompanied by his servant, took the road to Ellangowan. He had no need to inquire the way. A sale in the country is a place of public resort and amusement, and people of various descriptions streamed to it from all quarters.

After a pleasant ride of about an hour, the old towers of the ruin presented themselves in the landscape. The thoughts, with what different feelings he had lost sight of them so many years before, thronged upon the mind of the traveller. The landscape was the same; but how changed the feelings, hopes, and views of the spectator! Then life and love were new, and all the prospect was gilded by their rays. And now, disappointed in affection, sated with fame and what the world calls success, his mind, goaded by bitter and repentant recollection, his best hope was to find a retirement in which he might nurse the melancholy that was to accompany him to his grave. 'Yet why should an individual mourn over the instability of his hopes and the vanity of his prospects? The ancient chiefs who erected these enormous and massive towers to be the fortress of their race and the seat of their power,--could they have dreamed the day was to come when the last of their descendants should be expelled, a ruined wanderer, from his possessions! But Nature's bounties are unaltered. The sun will shine as fair on these ruins, whether the property of a stranger or of a sordid and obscure trickster of the abused law, as when the banners of the founder first waved upon their battlements.'

These reflections brought Mannering to the door of the house, which was that day open to all. He entered among others, who traversed the apartments, some to select articles for purchase, others to gratify their curiosity. There is something melancholy in such a scene, even under the most favourable circumstances. The confused state of the furniture, displaced for the convenience of being easily viewed and carried off by the purchasers, is disagreeable to the eye. Those articles which, properly and decently arranged, look creditable and handsome, have then a paltry and wretched appearance; and the apartments, stripped of all that render them commodious and comfortable, have an aspect of ruin and dilapidation. It is disgusting also to see the scenes of domestic society and seclusion thrown open to the gaze of the curious and the vulgar, to hear their coarse speculations and brutal jests upon the fashions and furniture to which they are unaccustomed,--a frolicsome humour much cherished by the whisky which in Scotland is always put in circulation on such occasions. All these are ordinary effects

of such a scene as Ellangowan now presented; but the moral feeling, that in this case they indicated the total ruin of an ancient and honourable family, gave them treble weight and poignancy.

It was some time before Colonel Mannering could find any one disposed to answer his reiterated questions concerning Ellangowan himself. At length an old maidservant, who held her apron to her eyes as she spoke, told him 'the Laird was something better, and they hoped he would be able to leave the house that day. Miss Lucy expected the chaise every moment, and, as the day was fine for the time o'year, they had carried him in his easychair up to the green before the auld castle, to be out of the way of this unco spectacle.' Thither Colonel Mannering went in quest of him, and soon came in sight of the little group, which consisted of four persons. The ascent was steep, so that he had time to reconnoitre them as he advanced, and to consider in what mode he should make his address.

Mr. Bertram, paralytic and almost incapable of moving, occupied his easy-chair, attired in his nightcap and a loose camlet coat, his feet wrapped in blankets. Behind him, with his hands crossed on the cane upon which he rested, stood Dominie Sampson, whom Mannering recognised at once. Time had made no change upon him, unless that his black coat seemed more brown, and his gaunt cheeks more lank, than when Mannering last saw him. On one side of the old man was a sylph-like form--a young woman of about seventeen, whom the Colonel accounted to be his daughter. She was looking from time to time anxiously towards the avenue, as if expecting the post-chaise; and between whiles busied herself in adjusting the blankets so as to protect her father from the cold, and in answering inquiries, which he seemed to make with a captious and querulous manner. She did not trust herself to look towards the Place, although the hum of the assembled crowd must have drawn her attention in that direction. The fourth person of the group was a handsome and genteel young man, who seemed to share Miss Bertram's anxiety, and her solicitude to soothe and accommodate her parent.

This young man was the first who observed Colonel Mannering, and immediately stepped forward to meet him, as if politely to prevent his drawing nearer to the distressed group. Mannering instantly paused and explained. ‘He was,’ he said, ‘a stranger to whom Mr. Bertram had formerly shown kindness and hospitality; he would not have intruded himself upon him at a period of distress, did it not seem to be in some degree a moment also of desertion; he wished merely to offer such services as might be in his power to Mr. Bertram and the young lady.’

He then paused at a little distance from the chair. His old acquaintance gazed at him with lack-lustre eye, that intimated no tokens of recognition; the Dominie seemed too deeply sunk in distress even to observe his presence. The young man spoke aside with Miss Bertram, who advanced timidly, and thanked Colonel Mannering for his goodness; ‘but,’ she said, the tears gushing fast into her eyes, ‘her father, she feared, was not so much himself as to be able to remember him.’

She then retreated towards the chair, accompanied by the Colonel. ‘Father,’ she said, ‘this is Mr. Mannering, an old friend, come to inquire after you.’

‘He’s very heartily welcome,’ said the old man, raising himself in his chair, and attempting a gesture of courtesy, while a gleam of hospitable satisfaction seemed to pass over his faded features; ‘but, Lucy, my dear, let us go down to the house; you should not keep the gentleman here in the cold. Dominie, take the key of the wine-cooler. Mr. a--a--the gentleman will surely take something after his ride.’

Mannering was unspeakably affected by the contrast which his recollection made between this reception and that with which he had been greeted by the same individual when they last met. He could not restrain his tears, and his evident emotion at once attained him the confidence of the friendless young lady.

‘Alas!’ she said, ‘this is distressing even to a stranger; but it may be better for my poor father to be in this way than if he knew and could feel all.’

A servant in livery now came up the path, and spoke in an undertone to the young gentleman--'Mr. Charles, my lady's wanting you yonder sadly, to bid for her for the black ebony cabinet; and Lady Jean Devorgoil is wi' her an' a'; ye maun come away directly.'

'Tell them you could not find me, Tom, or, stay,--say I am looking at the horses.'

'No, no, no,' said Lucy Bertram, earnestly; 'if you would not add to the misery of this miserable moment, go to the company directly. This gentleman, I am sure, will see us to the carriage.'

'Unquestionably, madam,' said Mannering, 'your young friend may rely on my attention.'

'Farewell, then,' said young Hazlewood, and whispered a word in her ear; then ran down the steep hastily, as if not trusting his resolution at a slower pace.

'Where's Charles Hazlewood running?' said the invalid, who apparently was accustomed to his presence and attentions; 'where's Charles Hazlewood running? what takes him away now?'

'He'll return in a little while,' said Lucy, gently.

The sound of voices was now heard from the ruins. The reader may remember there was a communication between the castle and the beach, up which the speakers had ascended.

'Yes, there's a plenty of shells and seaware for manure, as you observe; and if one inclined to build a new house, which might indeed be necessary, there's a great deal of good hewn stone about this old dungeon, for the devil here--'

'Good God!' said Miss Bertram hastily to Sampson, ''t is that wretch Glossin's voice! If my father sees him, it will kill him outright!'

Zaid n. adwan

Sampson wheeled perpendicularly round, and moved with long strides to confront the attorney as he issued from beneath the portal arch of the ruin. ‘Avoid ye!’ he said, ‘avoid ye! wouldst thou kill and take possession?’

‘Come, come, Master Dominie Sampson,’ answered Glossin insolently, ‘if ye cannot preach in the pulpit, we’ll have no preaching here. We go by the law, my good friend; we leave the gospel to you.’

The very mention of this man’s name had been of late a subject of the most violent irritation to the unfortunate patient. The sound of his voice now produced an instantaneous effect. Mr. Bertram started up without assistance and turned round towards him; the ghastliness of his features forming a strange contrast with the violence of his exclamations.--’Out of my sight, ye viper! ye frozen viper, that I warmed, till ye stung me! Art thou not afraid that the walls of my father’s dwelling should fall and crush thee limb and bone? Are ye not afraid the very lintels of the door of Ellangowan Castle should break open and swallow you up? Were ye not friendless, houseless, penniless, when I took ye by the hand; and are ye not expelling me--me and that innocent girl--friendless, houseless, and penniless, from the house that has sheltered us and ours for a thousand years?’

Had Glossin been alone, he would probably have slunk off; but the consciousness that a stranger was present, besides the person who came with him (a sort of land-surveyor), determined him to resort to impudence. The task, however, was almost too hard even for his effrontery--’Sir--sir--Mr. Bertram, sir, you should not blame me, but your own imprudence, sir--’

The indignation of Mannering was mounting very high. ‘Sir,’ he said to Glossin, ‘without entering into the merits of this controversy, I must inform you that you have chosen a very improper place, time, and presence for it. And you will oblige me by withdrawing without more words.’

Glossin, being a tall, strong, muscular man, was not unwilling rather to turn upon the stranger, whom he hoped to bully, than maintain his wretched cause against his injured patron.--'I do not know who you are, sir,' he said, 'and I shall permit no man to use such d--d freedom with me.'

Mannering was naturally hot-tempered: his eyes flashed a dark light; he compressed his nether lip so closely that the blood sprung, and approaching Glossin--'Look you, sir,' he said,' that you do not know me is of little consequence. _I_ KNOW YOU; and if you do not instantly descend that bank, without uttering a single syllable, by the Heaven that is above us you shall make but one step from the top to the bottom!'

The commanding tone of rightful anger silenced at once the ferocity of the bully. He hesitated, turned on his heel, and, muttering something between his teeth about unwillingness to alarm the lady, relieved them of his hateful company.

Mrs. Mac-Candlish's postilion, who had come up in time to hear what passed, said aloud, 'If he had stuck by the way, I would have lent him a heezie, the dirty scoundrel, as willingly as ever I pitched a boddle.'

He then stepped forward to announce that his horses were in readiness for the invalid and his daughter. But they were no longer necessary. The debilitated frame of Mr. Bertram was exhausted by this last effort of indignant anger, and when he sunk again upon his chair, he expired almost without a struggle or groan. So little alteration did the extinction of the vital spark make upon his external appearance that the screams of his daughter, when she saw his eye fix and felt his pulse stop, first announced his death to the spectators.

zain.adwan

CHAPTER XIV

The bell strikes one. We take no note of time
But from its loss. To give it then a tongue
Is wise in man. As if an angel spoke,
I feel the solemn sound.

YOUNG.

The moral which the poet has rather quaintly deduced from the necessary mode of measuring time may be well applied to our feelings respecting that portion of it which constitutes human life. We observe the aged, the infirm, and those engaged in occupations of immediate hazard, trembling as it were upon the very brink of non-existence, but we derive no lesson from the precariousness of their tenure until it has altogether failed. Then, for a moment at least--

Our hopes and fears Start up alarm'd, and o'er life's narrow verge Look down--on what? a fathomless abyss, A dark eternity, how surely ours!

The crowd of assembled gazers and idlers at Ellangowan had followed the views of amusement, or what they called business, which brought them there, with little regard to the feelings of those who were suffering upon that occasion. Few, indeed, knew anything of the family. The father, betwixt seclusion, misfortune, and imbecility, had drifted, as it were, for many years out of the notice of his contemporaries; the daughter had never been known to them. But when the general murmur announced that the unfortunate Mr. Bertram had broken his heart in the effort to leave the mansion of his forefathers, there poured forth a torrent of sympathy like the waters from the rock when stricken by the wand of the prophet. The ancient descent and unblemished integrity of the family were respectfully remembered; above all, the sacred veneration due to misfortune, which in Scotland seldom demands its tribute in vain, then claimed and received it.

zaidn.adwan

Mr. Mac-Morlan hastily announced that he would suspend all farther proceedings in the sale of the estate and other property, and relinquish the possession of the premises to the young lady, until she could consult with her friends and provide for the burial of her father.

Glossin had cowered for a few minutes under the general expression of sympathy, till, hardened by observing that no appearance of popular indignation was directed his way, he had the audacity to require that the sale should proceed.

'I will take it upon my own authority to adjourn it,' said the Sheriff-substitute, 'and will be responsible for the consequences. I will also give due notice when it is again to go forward. It is for the benefit of all concerned that the lands should bring the highest price the state of the market will admit, and this is surely no time to expect it. I will take the responsibility upon myself.'

Glossin left the room and the house too with secrecy and despatch; and it was probably well for him that he did so, since our friend Jock Jabos was already haranguing a numerous tribe of bare-legged boys on the propriety of pelting him off the estate.

Some of the rooms were hastily put in order for the reception of the young lady, and of her father's dead body. Mannering now found his farther interference would be unnecessary, and might be misconstrued. He observed, too, that several families connected with that of Ellangowan, and who indeed derived their principal claim of gentility from the alliance, were now disposed to pay to their trees of genealogy a tribute which the adversity of their supposed relatives had been inadequate to call forth; and that the honour of superintending the funeral rites of the dead Godfrey Bertram (as in the memorable case of Homer's birthplace) was likely to be debated by seven gentlemen of rank and fortune, none of whom had offered him an asylum while living. He therefore resolved, as his presence was altogether useless, to make a short tour of a fortnight, at the end of which period the adjourned sale of the estate of Ellangowan was to proceed.

zain.adwan

But before he departed he solicited an interview with the Dominie. The poor man appeared, on being informed a gentleman wanted to speak to him, with some expression of surprise in his gaunt features, to which recent sorrow had given an expression yet more grisly. He made two or three profound reverences to Mannering, and then, standing erect, patiently waited an explanation of his commands.

'You are probably at a loss to guess, Mr. Sampson,' said Mannering, 'what a stranger may have to say to you?'

'Unless it were to request that I would undertake to train up some youth in polite letters and humane learning; but I cannot--I cannot; I have yet a task to perform.'

'No, Mr. Sampson, my wishes are not so ambitious. I have no son, and my only daughter, I presume, you would not consider as a fit pupil.'

'Of a surety no,' replied the simple-minded Sampson. 'Nathless, it was I who did educate Miss Lucy in all useful learning, albeit it was the housekeeper who did teach her those unprofitable exercises of hemming and shaping.'

'Well, sir,' replied Mannering, 'it is of Miss Lucy I meant to speak. You have, I presume, no recollection of me?'

Sampson, always sufficiently absent in mind, neither remembered the astrologer of past years, nor even the stranger who had taken his patron's part against Glossin, so much had his friend's sudden death embroiled his ideas.

'Well, that does not signify,' pursued the Colonel; 'I am an old acquaintance of the late Mr. Bertram, able and willing to assist his daughter in her present circumstances. Besides, I have thoughts of making this purchase, and I should wish things kept in order about the place; will you have the goodness to apply this small sum in the usual family expenses?' He put into the Dominie's hand a purse containing some gold.

'Pro-di-gi-ous!' exclaimed Dominie Sampson. 'But if your honour would tarry--'

'Impossible, sir, impossible,' said Mannering, making his escape from him.

‘Pro-di-gi-ous!’ again exclaimed Sampson, following to the head of the stairs, still holding out the purse. ‘But as touching this coined money--’

Mannering escaped downstairs as fast as possible.

‘Pro-di-gi-ous!’ exclaimed Dominie Sampson, yet the third time, now standing at the front door. ‘But as touching this specie--’

But Mannering was now on horseback, and out of hearing. The Dominie, who had never, either in his own right or as trustee for another, been possessed of a quarter part of this sum, though it was not above twenty guineas, ‘took counsel,’ as he expressed himself, ‘how he should demean himself with respect unto the fine gold’ thus left in his charge. Fortunately he found a disinterested adviser in Mac-Morlan, who pointed out the most proper means of disposing of it for contributing to Miss Bertram’s convenience, being no doubt the purpose to which it was destined by the bestower.

Many of the neighbouring gentry were now sincerely eager in pressing offers of hospitality and kindness upon Miss Bertram. But she felt a natural reluctance to enter any family for the first time as an object rather of benevolence than hospitality, and determined to wait the opinion and advice of her father’s nearest female relation, Mrs. Margaret Bertram of Singleside, an old unmarried lady, to whom she wrote an account of her present distressful situation.

The funeral of the late Mr. Bertram was performed with decent privacy, and the unfortunate young lady was now to consider herself as but the temporary tenant of the house in which she had been born, and where her patience and soothing attentions had so long ‘rocked the cradle of declining age.’ Her communication with Mr. Mac-Morlan encouraged her to hope that she would not be suddenly or unkindly deprived of this asylum; but fortune had ordered otherwise.

For two days before the appointed day for the sale of the lands and estate of Ellangowan, Mac-Morlan daily expected the appearance of Colonel Mannering, or at least a letter containing powers to act for him. But none such arrived. Mr. Mac-Morlan

waked early in the morning, walked over to the Post-office,--there were no letters for him. He endeavoured to persuade himself that he should see Colonel Mannering to breakfast, and ordered his wife to place her best china and prepare herself accordingly. But the preparations were in vain. ‘Could I have foreseen this,’ he said, ‘I would have travelled Scotland over, but I would have found some one to bid against Glossin.’ Alas! such reflections were all too late. The appointed hour arrived; and the parties met in the Masons’ Lodge at Kippletringan, being the place fixed for the adjourned sale. Mac-Morlan spent as much time in preliminaries as decency would permit, and read over the articles of sale as slowly as if he had been reading his own death-warrant. He turned his eye every time the door of the room opened, with hopes which grew fainter and fainter. He listened to every noise in the street of the village, and endeavoured to distinguish in it the sound of hoofs or wheels. It was all in vain. A bright idea then occurred, that Colonel Mannering might have employed some other person in the transaction; he would not have wasted a moment’s thought upon the want of confidence in himself which such a manoeuvre would have evinced. But this hope also was groundless. After a solemn pause, Mr. Glossin offered the upset price for the lands and barony of Ellangowan. No reply was made, and no competitor appeared; so, after a lapse of the usual interval by the running of a sand-glass, upon the intended purchaser entering the proper sureties, Mr. Mac-Morlan was obliged, in technical terms, to ‘find and declare the sale lawfully completed, and to prefer the said Gilbert Glossin as the purchaser of the said lands and estate.’ The honest writer refused to partake of a splendid entertainment with which Gilbert Glossin, Esquire, now of Ellangowan, treated the rest of the company, and returned home in huge bitterness of spirit, which he vented in complaints against the fickleness and caprice of these Indian nabobs, who never knew what they would be at for ten days together. Fortune generously determined to take the blame upon herself, and cut off even this vent of Mac-Morlan’s resentment.

An express arrived about six o’clock at night, ‘very particularly drunk,’ the maid-servant said, with a packet from Colonel Mannering, dated four days back, at a town

about a hundred miles' distance from Kippletringan, containing full powers to Mr. Mac-Morlan, or any one whom he might employ, to make the intended purchase, and stating that some family business of consequence called the Colonel himself to Westmoreland, where a letter would find him, addressed to the care of Arthur Mervyn, Esq., of Mervyn Hall.

Mac-Morlan, in the transports of his wrath, flung the power of attorney at the head of the innocent maidservant, and was only forcibly withheld from horse-whipping the rascally messenger by whose sloth and drunkenness the disappointment had taken place.

zaid n adwan

CHAPTER XV

My gold is gone, my money is spent,
My land now take it unto thee.
Give me thy gold, good John o' the Scales,
And thine for aye my land shall be.

Then John he did him to record draw.
And John he caste him a gods-pennie;
But for every pounde that John agreed,
The land, I wis, was well worth three.

HEIR OF LINNE.

The Galwegian John o' the Scales was a more clever fellow than his prototype. He contrived to make himself heir of Linne without the disagreeable ceremony of 'telling down the good red gold.' Miss Bertram no sooner heard this painful, and of late

unexpected, intelligence than she proceeded in the preparations she had already made for leaving the mansion-house immediately. Mr. Mac-Morlan assisted her in these arrangements, and pressed upon her so kindly the hospitality and protection of his roof, until she should receive an answer from her cousin, or be enabled to adopt some settled plan of life, that she felt there would be unkindness in refusing an invitation urged with such earnestness. Mrs. Mac-Morlan was a ladylike person, and well qualified by birth and manners to receive the visit, and to make her house agreeable to Miss Bertram. A home, therefore, and an hospitable reception were secured to her, and she went on with better heart to pay the wages and receive the adieus of the few domestics of her father's family.

Where there are estimable qualities on either side, this task is always affecting; the present circumstances rendered it doubly so. All received their due, and even a trifle more, and with thanks and good wishes, to which some added tears, took farewell of their young mistress. There remained in the parlour only Mr. Mac-Morlan, who came to attend his guest to his house, Dominie Sampson, and Miss Bertram. 'And now,' said the poor girl, 'I must bid farewell to one of my oldest and kindest friends. God bless you, Mr. Sampson, and requite to you all the kindness of your instructions to your poor pupil, and your friendship to him that is gone. I hope I shall often hear from you.' She slid into his hand a paper containing some pieces of gold, and rose, as if to leave the room.

Dominie Sampson also rose; but it was to stand aghast with utter astonishment. The idea of parting from Miss Lucy, go where she might, had never once occurred to the simplicity of his understanding. He laid the money on the table. 'It is certainly inadequate,' said Mac-Morlan, mistaking his meaning, 'but the circumstances--'

Mr. Sampson waved his hand impatiently.--'It is not the lucre, it is not the lucre; but that I, that have ate of her father's loaf, and drank of his cup, for twenty years and more--to think that I am going to leave her, and to leave her in distress and dolour! No, Miss

Lucy, you need never think it! You would not consent to put forth your father's poor dog, and would you use me waur than a messan? No, Miss Lucy Bertram, while I live I will not separate from you. I'll be no burden; I have thought how to prevent that. But, as Ruth said unto Naomi, "Entreat me not to leave thee, nor to depart from thee; for whither thou goest I will go, and where thou dwellest I will dwell; thy people shall be my people, and thy God shall be my God. Where thou diest will I die, and there will I be buried. The Lord do so to me, and more also, if aught but death do part thee and me."'

During this speech, the longest ever Dominie Sampson was known to utter, the affectionate creature's eyes streamed with tears, and neither Lucy nor Mac-Morlan could refrain from sympathising with this unexpected burst of feeling and attachment. 'Mr. Sampson,' said Mac-Morlan, after having had recourse to his snuff-box and handkerchief alternately, 'my house is large enough, and if you will accept of a bed there while Miss Bertram honours us with her residence, I shall think myself very happy, and my roof much favoured, by receiving a man of your worth and fidelity.' And then, with a delicacy which was meant to remove any objection on Miss Bertram's part to bringing with her this unexpected satellite, he added, 'My business requires my frequently having occasion for a better accountant than any of my present clerks, and I should be glad to have recourse to your assistance in that way now and then.'

'Of a surety, of a surety,' said Sampson eagerly; 'I understand book-keeping by double entry and the Italian method.'

Our postilion had thrust himself into the room to announce his chaise and horses; he tarried, unobserved, during this extraordinary scene, and assured Mrs. Mac-Candlish it was the most moving thing he ever saw; 'the death of the grey mare, puir hizzie, was naething till't.' This trifling circumstance afterwards had consequences of greater moment to the Dominie.

The visitors were hospitably welcomed by Mrs. Mac-Morlan, to whom, as well as to others, her husband intimated that he had engaged Dominie Sampson's assistance to disentangle some perplexed accounts, during which occupation he would, for convenience sake, reside with the family. Mr. Mac-Morlan's knowledge of the world induced him to put this colour upon the matter, aware that, however honourable the fidelity of the Dominie's attachment might be both to his own heart and to the family of Ellangowan, his exterior ill qualified him to be a'squire of dames,' and rendered him, upon the whole, rather a ridiculous appendage to a beautiful young woman of seventeen.

Dominie Sampson achieved with great zeal such tasks as Mr. Mac-Morlan chose to entrust him with; but it was speedily observed that at a certain hour after breakfast he regularly disappeared, and returned again about dinner-time. The evening he occupied in the labour of the office. On Saturday he appeared before Mac-Morlan with a look of great triumph, and laid on the table two pieces of gold. 'What is this for, Dominie?' said Mac-Morlan.

'First to indemnify you of your charges in my behalf, worthy sir; and the balance for the use of Miss Lucy Bertram.'

'But, Mr. Sampson, your labour in the office much more than recompenses me; I am your debtor, my good friend.'

'Then be it all,' said the Dominie, waving his hand, 'for Miss Lucy Bertram's behoof.'

'Well, but, Dominie, this money-'

'It is honestly come by, Mr. Mac-Morlan; it is the bountiful reward of a young gentleman to whom I am teaching the tongues; reading with him three hours daily.'

A few more questions extracted from the Dominie that this liberal pupil was young Hazlewood, and that he met his preceptor daily at the house of Mrs. Mac-Candlish, whose proclamation of Sampson's disinterested attachment to the young lady had procured him this indefatigable and bounteous scholar.

Mac-Morlan was much struck with what he heard. Dominie Sampson was doubtless a very good scholar, and an excellent man, and the classics were unquestionably very well worth reading; yet that a young man of twenty should ride seven miles and back again each day in the week, to hold this sort of TETE-A-TETE of three hours, was a zeal for literature to which he was not prepared to give entire credit. Little art was necessary to sift the Dominie, for the honest man's head never admitted any but the most direct and simple ideas. 'Does Miss Bertram know how your time is engaged, my good friend?'

'Surely not as yet. Mr. Charles recommended it should be concealed from her, lest she should scruple to accept of the small assistance arising from it; but,' he added, 'it would not be possible to conceal it long, since Mr. Charles proposed taking his lessons occasionally in this house.'

'O, he does!' said Mac-Morlan.' Yes, yes, I can understand that better. And pray, Mr. Sampson, are these three hours entirely spent inconstruing and translating?'

'Doubtless, no; we have also colloquial intercourse to sweeten study: neque semper arcum tendit apollo.'

The querist proceeded to elicit from this Galloway Phoebus what their discourse chiefly turned upon.

'Upon our past meetings at Ellangowan; and, truly, I think very often we discourse concerning Miss Lucy, for Mr. Charles Hazlewood in that particular resembleth me, Mr. Mac-Morlan. When I begin to speak of her I never know when to stop; and, as I say (jocularly), she cheats us out of half our lessons.'

'O ho!' thought Mac-Morlan, 'sits the wind in that quarter? I've heard something like this before.'

He then began to consider what conduct was safest for his protegee, and even for himself; for the senior Mr. Hazlewood was powerful, wealthy, ambitious, and vindictive, and looked for both fortune and title in any connexion which his son might

form. At length, having the highest opinion of his guest's good sense and penetration, he determined to take an opportunity, when they should happen to be alone, to communicate the matter to her as a simple piece of intelligence. He did so in as natural a manner as he could. 'I wish you joy of your friend Mr. Sampson's good fortune, Miss Bertram; he has got a pupil who pays him two guineas for twelve lessons of Greek and Latin.'

'Indeed! I am equally happy and surprised. Who can be so liberal? is Colonel Mannering returned?'

'No, no, not Colonel Mannering; but what do you think of your acquaintance, Mr. Charles Hazlewood? He talks of taking his lessons here; I wish we may have accommodation for him.'

Lucy blushed deeply. 'For Heaven's sake, no, Mr. Mac-Morlan, do not let that be; Charles Hazlewood has had enough of mischief about that already.'

'About the classics, my dear young lady?' wilfully seeming to misunderstand her; 'most young gentlemen have so at one period or another, sure enough; but his present studies are voluntary.'

Miss Bertram let the conversation drop, and her host made no effort to renew it, as she seemed to pause upon the intelligence in order to form some internal resolution.

The next day Miss Bertram took an opportunity of conversing with Mr. Sampson. Expressing in the kindest manner her grateful thanks for his disinterested attachment, and her joy that he had got such a provision, she hinted to him that his present mode of superintending Charles Hazlewood's studies must be so inconvenient to his pupil that, while that engagement lasted, he had better consent to a temporary separation, and reside either with his scholar or as near him as might be. Sampson refused, as indeed she had expected, to listen a moment to this proposition; he would not quit her to be made preceptor to the Prince of Wales. 'But I see,' he added, 'you are too proud to share my pittance; and peradventure I grow wearisome unto you.'

‘No indeed; you were my father’s ancient, almost his only, friend. I am not proud; God knows, I have no reason to be so. You shall do what you judge best in other matters; but oblige me by telling Mr. Charles Hazlewood that you had some conversation with me concerning his studies, and that I was of opinion that his carrying them on in this house was altogether impracticable, and not to be thought of.’

Dominie Sampson left her presence altogether crest-fallen, and, as he shut the door, could not help muttering the ‘varium et mutabile’ of Virgil. Next day he appeared with a very rueful visage, and tendered Miss Bertram a letter. ‘Mr. Hazlewood,’ he said, ‘was to discontinue his lessons, though he had generously made up the pecuniary loss. But how will he make up the loss to himself of the knowledge he might have acquired under my instruction? Even in that one article of writing,--he was an hour before he could write that brief note, and destroyed many scrolls, four quills, and some good white paper. I would have taught him in three weeks a firm, current, clear, and legible hand; he should have been a calligrapher,--but God’s will be done.’

The letter contained but a few lines, deeply regretting and murmuring against Miss Bertram’s cruelty, who not only refused to see him, but to permit him in the most indirect manner to hear of her health and contribute to her service. But it concluded with assurances that her severity was vain, and that nothing could shake the attachment of Charles Hazlewood.

Under the active patronage of Mrs. Mac-Candlish, Sampson picked up some other scholars--very different indeed from Charles Hazlewood in rank, and whose lessons were proportionally unproductive. Still, however, he gained something, and it was the glory of his heart to carry it to Mr. Mac-Morlan weekly, a slight peculium only subtracted to supply his snuff-box and tobacco-pouch.

And here we must leave Kippletringan to look after our hero, lest our readers should fear they are to lose sight of him for another quarter of a century.

CHAPTER XVI

Our Polly is a sad slut, nor heeds what we have taught her,
I wonder any man alive will ever rear a daughter,
For when she's drest with care and cost, all tempting, fine,
and gay,
As men should serve a cucumber, she flings herself away.

Beggar's Opera.

After the death of Mr. Bertram, Mannering had set out upon a short tour, proposing to return to the neighbourhood of Ellangowan before the sale of that property should take place. He went, accordingly, to Edinburgh and elsewhere, and it was in his return towards the south-western district of Scotland, in which our scene lies, that, at a post-town about a hundred miles from Kippletringan, to which he had requested his friend, Mr. Mervyn, to address his letters, he received one from that gentleman which contained rather unpleasing intelligence. We have assumed already the privilege of acting a secretis to this gentleman, and therefore shall present the reader with an extract from this epistle.

'I beg your pardon, my dearest friend, for the pain I have given you in forcing you to open wounds so festering as those your letter referred to. I have always heard, though erroneously perhaps, that the attentions of Mr. Brown were intended for Miss

Mannering. But, however that were, it could not be supposed that in your situation his boldness should escape notice and chastisement. Wise men say that we resign to civil society our natural rights of self-defence only on condition that the ordinances of law should protect us. Where the price cannot be paid, the resignation becomes void. For instance, no one supposes that I am not entitled to defend my purse and person against a highwayman, as much as if I were a wild Indian, who owns neither law nor magistracy. The question of resistance or submission must be determined by my means and situation. But if, armed and equal in force, I submit to injustice and violence from any man, high or low, I presume it will hardly be attributed to religious or moral feeling in me, or in any one but a Quaker. An aggression on my honour seems to me much the same. The insult, however trifling in itself, is one of much deeper consequence to all views in life than any wrong which can be inflicted by a depredator on the highway, and to redress the injured party is much less in the power of public jurisprudence, or rather it is entirely beyond its reach. If any man chooses to rob Arthur Mervyn of the contents of his purse, supposing the said Arthur has not means of defence, or the skill and courage to use them, the assizes at Lancaster or Carlisle will do him justice by tucking up the robber; yet who will say I am bound to wait for this justice, and submit to being plundered in the first instance, if I have myself the means and spirit to protect my own property? But if an affront is offered to me, submission under which is to tarnish my character for ever with men of honour, and for which the twelve judges of England, with the chancellor to boot, can afford me no redress, by what rule of law or reason am I to be deterred from protecting what ought to be, and is, so infinitely dearer to every man of honour than his whole fortune? Of the religious views of the matter I shall say nothing, until I find a reverend divine who shall condemn self-defence in the article of life and property. If its propriety in that case be generally admitted, I suppose little distinction can be drawn between defence of person and goods and protection of reputation. That the latter is liable to be assailed by persons of a different rank in life, untainted perhaps in morals, and fair in character, cannot affect my legal right of self-

defence. I may be sorry that circumstances have engaged me in personal strife with such an individual; but I should feel the same sorrow for a generous enemy who fell under my sword in a national quarrel. I shall leave the question with the casuists, however; only observing, that what I have written will not avail either the professed duellist or him who is the aggressor in a dispute of honour. I only presume to exculpate him who is dragged into the field by such an offence as, submitted to in patience, would forfeit for ever his rank and estimation in society.

'I am sorry you have thoughts of settling in Scotland, and yet glad that you will still be at no immeasurable distance, and that the latitude is all in our favour. To move to Westmoreland from Devonshire might make an East-Indian shudder; but to come to us from Galloway or Dumfries-shire is a step, though a short one, nearer the sun. Besides, if, as I suspect, the estate in view be connected with the old haunted castle in which you played the astrologer in your northern tour some twenty years since, I have heard you too often describe the scene with comic unction to hope you will be deterred from making the purchase. I trust, however, the hospitable gossiping Laird has not run himself upon the shallows, and that his chaplain, whom you so often made us laugh at, is still in rerum natura.

'And here, dear Mannering, I wish I could stop, for I have incredible pain in telling the rest of my story; although I am sure I can warn you against any intentional impropriety on the part of my temporary ward, Julia Mannering. But I must still earn my college nickname of Downright Dunstable. In one word, then, here is the matter.

'Your daughter has much of the romantic turn of your disposition, with a little of that love of admiration which all pretty women share less or more. She will besides, apparently, be your heiress; a trifling circumstance to those who view Julia with my eyes, but a prevailing bait to the specious, artful, and worthless. You know how I have jested with her about her soft melancholy, and lonely walks at morning before any one is up, and in the moonlight when all should be gone to bed, or set down to cards, which

is the same thing. The incident which follows may not be beyond the bounds of a joke, but I had rather the jest upon it came from you than me.

'Two or three times during the last fortnight I heard, at a late hour in the night or very early in the morning, a flageolet play the little Hindu tune to which your daughter is so partial. I thought for some time that some tuneful domestic, whose taste for music was laid under constraint during the day, chose that silent hour to imitate the strains which he had caught up by the ear during his attendance in the drawing-room. But last night I sat late in my study, which is immediately under Miss Mannering's apartment, and to my surprise I not only heard the flageolet distinctly, but satisfied myself that it came from the lake under the window. Curious to know who serenaded us at that unusual hour, I stole softly to the window of my apartment. But there were other watchers than me. You may remember, Miss Mannering preferred that apartment on account of a balcony which opened from her window upon the lake. Well, sir, I heard the sash of her window thrown up, the shutters opened, and her own voice in conversation with some person who answered from below. This is not "Much ado about nothing"; I could not be mistaken in her voice, and such tones, so soft, so insinuating; and, to say the truth, the accents from below were in passion's tenderest cadence too,--but of the sense I can say nothing. I raised the sash of my own window that I might hear something more than the mere murmur of this Spanish rendezvous; but, though I used every precaution, the noise alarmed the speakers; down slid the young lady's casement, and the shutters were barred in an instant. The dash of a pair of oars in the water announced the retreat of the male person of the dialogue. Indeed, I saw his boat, which he rowed with great swiftness and dexterity, fly across the lake like a twelve-oared barge. Next morning I examined some of my domestics, as if by accident, and I found the gamekeeper, when making his rounds, had twice seen that boat beneath the house, with a single person, and had heard the flageolet. I did not care to press any farther questions, for fear of implicating Julia in the opinions of those of whom they might be asked. Next morning, at breakfast, I dropped a casual hint about the serenade of the evening before, and I promise you Miss

Mannering looked red and pale alternately. I immediately gave the circumstance such a turn as might lead her to suppose that my observation was merely casual. I have since caused a watch-light to be burnt in my library, and have left the shutters open, to deter the approach of our nocturnal guest; and I have stated the severity of approaching winter, and the rawness of the fogs, as an objection to solitary walks. Miss Mannering acquiesced with a passiveness which is no part of her character, and which, to tell you the plain truth, is a feature about the business which I like least of all. Julia has too much of her own dear papa's disposition to be curbed in any of her humours, were there not some little lurking consciousness that it may be as prudent to avoid debate.

'Now my story is told, and you will judge what you ought to do. I have not mentioned the matter to my good woman, who, a faithful secretary to her sex's foibles, would certainly remonstrate against your being made acquainted with these particulars, and might, instead, take it into her head to exercise her own eloquence on Miss Mannering; a faculty which, however powerful when directed against me, its legitimate object, might, I fear, do more harm than good in the case supposed. Perhaps even you yourself will find it most prudent to act without remonstrating, or appearing to be aware of this little anecdote. Julia is very like a certain friend of mine; she has a quick and lively imagination, and keen feelings, which are apt to exaggerate both the good and evil they find in life. She is a charming girl, however, as generous and spirited as she is lovely. I paid her the kiss you sent her with all my heart, and she rapped my ringers for my reward with all hers. Pray return as soon as you can. Meantime rely upon the care of, yours faithfully, 'ARTHUR MERVYN.

'P.S.--You will naturally wish to know if I have the least guess concerning the person of the serenader. In truth, I have none. There is no young gentleman of these parts, who might be in rank or fortune a match for Miss Julia, that I think at all likely to play such a character. But on the other side of the lake, nearly opposite to Mervyn Hall, is a d--d cake-house, the resort of walking gentlemen of all descriptions--poets, players, painters,

musicians--who come to rave, and recite, and madden about this picturesque land of ours. It is paying some penalty for its beauties, that they are the means of drawing this swarm of coxcombs together. But were Julia my daughter, it is one of those sort of fellows that I should fear on her account. She is generous and romantic, and writes six sheets a week to a female correspondent; and it's a sad thing to lack a subject in such a case, either for exercise of the feelings or of the pen. Adieu, once more. Were I to treat this matter more seriously than I have done, I should do injustice to your feelings; were I altogether to overlook it, I should discredit my own.'

The consequence of this letter was, that, having first despatched the faithless messenger with the necessary powers to Mr. Mac-Morlan for purchasing the estate of Ellangowan, Colonel Mannering turned his horse's head in a more southerly direction, and neither 'stinted nor staid' until he arrived at the mansion of his friend Mr. Mervyn, upon the banks of one of the lakes of Westmoreland.

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CHAPTER XVII

Heaven first, in its mercy, taught mortals their letters,
For ladies in limbo, and lovers in fetters,
Or some author, who, placing his persons before ye,
Ungallantly leaves them to write their own story.

POPE, imitated.

When Mannering returned to England, his first object had been to place his daughter in a seminary for female education, of established character. Not, however, finding her progress in the accomplishments which he wished her to acquire so rapid as his impatience expected, he had withdrawn Miss Mannering from the school at the end of the first quarter. So she had only time to form an eternal friendship with Miss Matilda Marchmont, a young lady about her own age, which was nearly eighteen. To her faithful eye were addressed those formidable quires which issued forth from Mervyn Hall on the wings of the post while Miss Mannering was a guest there. The perusal of a few short extracts from these may be necessary to render our story intelligible.

FIRST EXTRACT

‘Alas! my dearest Matilda, what a tale is mine to tell! Misfortune from the cradle has set her seal upon your unhappy friend. That we should be severed for so slight a cause--an ungrammatical phrase in my Italian exercise, and three false notes in one of Paisiello’s sonatas! But it is a part of my father’s character, of whom it is impossible to say whether I love, admire, or fear him the most. His success in life and in war, his habit of making every obstacle yield before the energy of his exertions, even where they seemed insurmountable--all these have given a hasty and peremptory cast to his character, which can neither endure contradiction nor make allowance for deficiencies. Then he is himself so very accomplished. Do you know, there was a murmur, half confirmed too by some mysterious words which dropped from my poor mother, that he possesses other sciences, now lost to the world, which enable the possessor to summon up before him the dark and shadowy forms of future events! Does not the very idea of such a power, or even of the high talent and commanding intellect which the world may mistake for it,--does it not, dear Matilda, throw a mysterious grandeur about its possessor? You will call this romantic; but consider I was born in the land of talisman and spell, and my childhood lulled by tales which you can only enjoy through the gauzy frippery of a French translation. O, Matilda, I wish you could have seen the dusky

visages of my Indian attendants, bending in earnest devotion round the magic narrative, that flowed, half poetry, half prose, from the lips of the tale-teller! No wonder that European fiction sounds cold and meagre, after the wonderful effects which I have seen the romances of the East produce upon their hearers.'

SECOND EXTRACT

'You are possessed, my dear Matilda, of my bosom-secret, in those sentiments with which I regard Brown. I will not say his memory; I am convinced he lives, and is faithful. His addresses to me were countenanced by my deceased parent, imprudently countenanced perhaps, considering the prejudices of my father in favour of birth and rank. But I, then almost a girl, could not be expected surely to be wiser than her under whose charge nature had placed me. My father, constantly engaged in military duty, I saw but at rare intervals, and was taught to look up to him with more awe than confidence. Would to Heaven it had been otherwise! It might have been better for us all at this day!'

THIRD EXTRACT

'You ask me why I do not make known to my father that Brown yet lives, at least that he survived the wound he received in that unhappy duel, and had written to my mother expressing his entire convalescence, and his hope of speedily escaping from captivity. A soldier, that "in the trade of war has oft slain men," feels probably no uneasiness at reflecting upon the supposed catastrophe which almost turned me into stone. And should I show him that letter, does it not follow that Brown, alive and maintaining with pertinacity the pretensions to the affections of your poor friend for which my father formerly sought his life, would be a more formidable disturber of Colonel Mannering's peace of mind than in his supposed grave? If he escapes from the hands of these marauders, I am convinced he will soon be in England, and it will be then time to consider how his existence is to be disclosed to my father. But if, alas! my earnest and confident hope should betray me, what would it avail to tear open a mystery fraught

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with so many painful recollections? My dear mother had such dread of its being known, that I think she even suffered my father to suspect that Brown's attentions were directed towards herself, rather than permit him to discover their real object; and O, Matilda, whatever respect I owe to the memory of a deceased parent, let me do justice to a living one. I cannot but condemn the dubious policy which she adopted, as unjust to my father, and highly perilous to herself and me. But peace be with her ashes! her actions were guided by the heart rather than the head; and shall her daughter, who inherits all her weakness, be the first to withdraw the veil from her defects?'

FOURTH EXTRACT 'MERVYN HALL.

'If India be the land of magic, this, my dearest Matilda, is the country of romance. The scenery is such as nature brings together in her sublimest moods-sounding cataracts--hills which rear their scathed heads to the sky--lakes that, winding up the shadowy valleys, lead at every turn to yet more romantic recesses--rocks which catch the clouds of heaven. All the wildness of Salvator here, and there the fairy scenes of Claude. I am happy too in finding at least one object upon which my father can share my enthusiasm. An admirer of nature, both as an artist and a poet, I have experienced the utmost pleasure from the observations by which he explains the character and the effect of these brilliant specimens of her power. I wish he would settle in this enchanting land. But his views lie still farther north, and he is at present absent on a tour in Scotland, looking, I believe, for some purchase of land which may suit him as a residence. He is partial, from early recollections, to that country. So, my dearest Matilda, I must be yet farther removed from you before I am established in a home. And O how delighted shall I be when I can say, Come, Matilda, and be the guest of your faithful Julia!

'I am at present the inmate of Mr. and Mrs. Mervyn, old friends of my father. The latter is precisely a good sort of woman, ladylike and housewifely; but for accomplishments or fancy--good lack, my dearest Matilda, your friend might as well seek sympathy from Mrs. Teach'em;--you see I have not forgot school nicknames.

Mervyn is a different--quite a different being from my father, yet he amuses and endures me. He is fat and good-natured, gifted with strong shrewd sense and some powers of humour; but having been handsome, I suppose, in his youth, has still some pretension to be a beau garcon, as well as an enthusiastic agriculturist. I delight to make him scramble to the tops of eminences and to the foot of waterfalls, and am obliged in turn to admire his turnips, his lucerne, and his timothy grass. He thinks me, I fancy, a simple romantic Miss, with some--the word will be out--beauty and some good-nature; and I hold that the gentleman has good taste for the female outside, and do not expect he should comprehend my sentiments farther. So he rallies, hands, and hobbles (for the dear creature has got the gout too), and tells old stories of high life, of which he has seen a great deal; and I listen, and smile, and look as pretty, as pleasant, and as simple as I can, and we do very well.

'But, alas! my dearest Matilda, how would time pass away, even in this paradise of romance, tenanted as it is by a pair assorting so ill with the scenes around them, were it not for your fidelity in replying to my uninteresting details? Pray do not fail to write three times a week at least; you can be at no loss what to say.'

FIFTH EXTRACT

'How shall I communicate what I have now to tell! My hand and heart still flutter so much, that the task of writing is almost impossible! Did I not say that he lived? did I not say I would not despair? How could you suggest, my dear Matilda, that my feelings, considering I had parted from him so young, rather arose from the warmth of my imagination than of my heart? O I was sure that they were genuine, deceitful as the dictates of our bosom so frequently are. But to my tale--let it be, my friend, the most sacred, as it is the most sincere, pledge of our friendship.

'Our hours here are early--earlier than my heart, with its load of care, can compose itself to rest. I therefore usually take a book for an hour or two after retiring to my own room, which I think I have told you opens to a small balcony, looking down upon that

beautiful lake of which I attempted to give you a slight sketch. Mervyn Hall, being partly an ancient building, and constructed with a view to defence, is situated on the verge of the lake. A stone dropped from the projecting balcony plunges into water deep enough to float a skiff. I had left my window partly unbarred, that, before I went to bed, I might, according to my custom, look out and see the moonlight shining upon the lake. I was deeply engaged with that beautiful scene in the "Merchant of Venice" where two lovers, describing the stillness of a summer night, enhance on each other its charms, and was lost in the associations of story and of feeling which it awakens, when I heard upon the lake the sound of a flageolet. I have told you it was Brown's favourite instrument. Who could touch it in a night which, though still and serene, was too cold, and too late in the year, to invite forth any wanderer for mere pleasure? I drew yet nearer the window, and hearkened with breathless attention; the sounds paused a space, were then resumed, paused again, and again reached my ear, ever coming nearer and nearer. At length I distinguished plainly that little Hindu air which you called my favourite. I have told you by whom it was taught me; the instrument, the tones, were his own! Was it earthly music, or notes passing on the wind, to warn me of his death?

'It was some time ere I could summon courage to step on the balcony; nothing could have emboldened me to do so but the strong conviction of my mind that he was still alive, and that we should again meet; but that conviction did embolden me, and I ventured, though with a throbbing heart. There was a small skiff with a single person. O, Matilda, it was himself! I knew his appearance after so long an absence, and through the shadow of the night, as perfectly as if we had parted yesterday, and met again in the broad sunshine! He guided his boat under the balcony, and spoke to me; I hardly knew what he said, or what I replied. Indeed, I could scarcely speak for weeping, but they were joyful tears. We were disturbed by the barking of a dog at some distance, and parted, but not before he had conjured me to prepare to meet him at the same place and hour this evening.

'But where and to what is all this tending? Can I answer this question? I cannot. Heaven, that saved him from death and delivered him from captivity, that saved my father, too, from shedding the blood of one who would not have blemished a hair of his head, that Heaven must guide me out of this labyrinth. Enough for me the firm resolution that Matilda shall not blush for her friend, my father for his daughter, nor my lover for her on whom he has fixed his affection.'

CHAPTER XVIII

Talk with a man out of a window!--a proper saying.

Much Ado about Nothing.

We must proceed with our extracts from Miss Mannering's letters, which throw light upon natural good sense, principle, and feelings, blemished by an imperfect education and the folly of a misjudging mother, who called her husband in her heart a tyrant until she feared him as such, and read romances until she became so enamoured of the complicated intrigues which they contain as to assume the management of a little family novel of her own, and constitute her daughter, a girl of sixteen, the principal heroine. She delighted in petty mystery and intrigue and secrets, and yet trembled at the indignation which these paltry manoeuvres excited in her husband's mind. Thus she frequently entered upon a scheme merely for pleasure, or perhaps for the love of contradiction, plunged deeper into it than she was aware, endeavoured to extricate

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herself by new arts, or to cover her error by dissimulation, became involved in meshes of her own weaving, and was forced to carry on, for fear of discovery, machinations which she had at first resorted to in mere wantonness.

Fortunately the young man whom she so imprudently introduced into her intimate society, and encouraged to look up to her daughter, had a fund of principle and honest pride which rendered him a safer intimate than Mrs. Mannering ought to have dared to hope or expect. The obscurity of his birth could alone be objected to him; in every other respect,

With prospects bright upon the world he came, Pure love of virtue, strong desire of fame, Men watched the way his lofty mind would take, And all foretold the progress he would make.

But it could not be expected that he should resist the snare which Mrs. Mannering's imprudence threw in his way, or avoid becoming attached to a young lady whose beauty and manners might have justified his passion, even in scenes where these are more generally met with than in a remote fortress in our Indian settlements. The scenes which followed have been partly detailed in Mannering's letter to Mr. Mervyn; and to expand what is there stated into farther explanation would be to abuse the patience of our readers.

We shall therefore proceed with our promised extracts from Miss Mannering's letters to her friend.

SIXTH EXTRACT

'I have seen him again, Matilda--seen him twice. I have used every argument to convince him that this secret intercourse is dangerous to us both; I even pressed him to pursue his views of fortune without farther regard to me, and to consider my peace of mind as sufficiently secured by the knowledge that he had not fallen under my father's sword. He answers--but how can I detail all he has to answer? He claims those hopes as his due which my mother permitted him to entertain, and would persuade me to the

madness of a union without my father's sanction. But to this, Matilda, I will not be persuaded. I have resisted, I have subdued, the rebellious feelings which arose to aid his plea; yet how to extricate myself from this unhappy labyrinth in which fate and folly have entangled us both!

'I have thought upon it, Matilda, till my head is almost giddy; nor can I conceive a better plan than to make a full confession to my father. He deserves it, for his kindness is unceasing; and I think I have observed in his character, since I have studied it more nearly, that his harsher feelings are chiefly excited where he suspects deceit or imposition; and in that respect, perhaps, his character was formerly misunderstood by one who was dear to him. He has, too, a tinge of romance in his disposition; and I have seen the narrative of a generous action, a trait of heroism, or virtuous self-denial, extract tears from him which refused to flow at a tale of mere distress. But then Brown urges that he is personally hostile to him. And the obscurity of his birth, that would be indeed a stumbling-block. O, Matilda, I hope none of your ancestors ever fought at Poictiers or Agincourt! If it were not for the veneration which my father attaches to the memory of old Sir Miles Mannering, I should make out my explanation with half the tremor which must now attend it.'

SEVENTH EXTRACT

'I have this instant received your letter--your most welcome letter! Thanks, my dearest friend, for your sympathy and your counsels; I can only repay them with unbounded confidence.

'You ask me what Brown is by origin, that his descent should be so unpleasing to my father. His story is shortly told. He is of Scottish extraction, but, being left an orphan, his education was undertaken by a family of relations settled in Holland. He was bred to commerce, and sent very early to one of our settlements in the East, where his guardian had a correspondent. But this correspondent was dead when he arrived in India, and he had no other resource than to offer himself as a clerk to a counting-house.

The breaking out of the war, and the straits to which we were at first reduced, threw the army open to all young men who were disposed to embrace that mode of life; and Brown, whose genius had a strong military tendency, was the first to leave what might have been the road to wealth, and to choose that of fame. The rest of his history is well known to you; but conceive the irritation of my father, who despises commerce (though, by the way, the best part of his property was made in that honourable profession by my great-uncle), and has a particular antipathy to the Dutch--think with what ear he would be likely to receive proposals for his only child from Vanbeest Brown, educated for charity by the house of Vanbeest and Vanbruggen! O, Matilda, it will never do; nay, so childish am I, I hardly can help sympathising with his aristocratic feelings. Mrs. Vanbeest Brown! The name has little to recommend it, to be sure. What children we are!'

EIGHTH EXTRACT

'It is all over now, Matilda! I shall never have courage to tell my father; nay, most deeply do I fear he has already learned my secret from another quarter, which will entirely remove the grace of my communication, and ruin whatever gleam of hope I had ventured to connect with it. Yesternight Brown came as usual, and his flageolet on the lake announced his approach. We had agreed that he should continue to use this signal. These romantic lakes attract numerous visitors, who indulge their enthusiasm in visiting the scenery at all hours, and we hoped that, if Brown were noticed from the house, he might pass for one of those admirers of nature, who was giving vent to his feelings through the medium of music. The sounds might also be my apology, should I be observed on the balcony. But last night, while I was eagerly enforcing my plan of a full confession to my father, which he as earnestly deprecated, we heard the window of Mr. Mervyn's library, which is under my room, open softly. I signed to Brown to make his retreat, and immediately reentered, with some faint hopes that our interview had not been observed.

‘But, alas! Matilda, these hopes vanished the instant I beheld Mr. Mervyn’s countenance at breakfast the next morning. He looked so provokingly intelligent and confidential, that, had I dared, I could have been more angry than ever I was in my life; but I must be on good behaviour, and my walks are now limited within his farm precincts, where the good gentleman can amble along by my side without inconvenience. I have detected him once or twice attempting to sound my thoughts, and watch the expression of my countenance. He has talked of the flageolet more than once, and has, at different times, made eulogiums upon the watchfulness and ferocity of his dogs, and the regularity with which the keeper makes his rounds with a loaded fowling-piece. He mentioned even man-traps and springguns. I should be loth to affront my father’s old friend in his own house; but I do long to show him that I am my father’s daughter, a fact of which Mr. Mervyn will certainly be convinced if ever I trust my voice and temper with a reply to these indirect hints. Of one thing I am certain--I am grateful to him on that account--he has not told Mrs. Mervyn. Lord help me, I should have had such lectures about the dangers of love and the night air on the lake, the risk arising from colds and fortune-hunters, the comfort and convenience of sack-whey and closed windows! I cannot help trifling, Matilda, though my heart is sad enough. What Brown will do I cannot guess. I presume, however, the fear of detection prevents his resuming his nocturnal visits. He lodges at an inn on the opposite shore of the lake, under the name, he tells me, of Dawson; he has a bad choice in names, that must be allowed. He has not left the army, I believe, but he says nothing of his present views,

‘To complete my anxiety, my father is returned suddenly, and in high displeasure. Our good hostess, as I learned from a bustling conversation between her housekeeper and her, had no expectation of seeing him for a week; but I rather suspect his arrival was no surprise to his friend Mr. Mervyn. His manner to me was singularly cold and constrained, sufficiently so to have damped all the courage with which I once resolved to throw myself on his generosity. He lays the blame of his being discomposed and out of humour to the loss of a purchase in the south-west of Scotland on which he had set

his heart; but I do not suspect his equanimity of being so easily thrown off its balance. His first excursion was with Mr. Mervyn's barge across the lake to the inn I have mentioned. You may imagine the agony with which I waited his return! Had he recognized Brown, who can guess the consequence! He returned, however, apparently without having made any discovery. I understand that, in consequence of his late disappointment, he means now to hire a house in the neighbourhood of this same Ellangowan, of which I am doomed to hear so much; he seems to think it probable that the estate for which he wishes may soon be again in the market. I will not send away this letter until I hear more distinctly what are his intentions.'

'I have now had an interview with my father, as confidential as, I presume, he means to allow me. He requested me to-day, after breakfast, to walk with him into the library; my knees, Matilda, shook under me, and it is no exaggeration to say I could scarce follow him into the room. I feared I knew not what. From my childhood I had seen all around him tremble at his frown. He motioned me to seat myself, and I never obeyed a command so readily, for, in truth, I could hardly stand. He himself continued to walk up and down the room. You have seen my father, and noticed, I recollect, the remarkably expressive cast of his features. His eyes are naturally rather light in colour, but agitation or anger gives them a darker and more fiery glance; he has a custom also of drawing in his lips when much moved, which implies a combat between native ardour of temper and the habitual power of self-command. This was the first time we had been alone since his return from Scotland, and, as he betrayed these tokens of agitation, I had little doubt that he was about to enter upon the subject I most dreaded.

'To my unutterable relief, I found I was mistaken, and that, whatever he knew of Mr. Mervyn's suspicions or discoveries, he did not intend to converse with me on the topic. Coward as I was, I was inexpressibly relieved, though, if he had really investigated the reports which may have come to his ear, the reality could have been nothing to what his suspicions might have conceived. But, though my spirits rose high at my unexpected

escape, I had not courage myself to provoke the discussion, and remained silent to receive his commands.

‘“Julia,” he said, “my agent writes me from Scotland that he has been able to hire a house for me, decently furnished, and with the necessary accommodation for my family; it is within three miles of that I had designed to purchase.” Then he made a pause, and seemed to expect an answer.

‘“Whatever place of residence suits you, sir, must be perfectly agreeable to me.”

‘“Umph! I do not propose, however, Julia, that you shall reside quite alone in this house during the winter.”

‘“Mr. and Mrs. Mervyn,” thought I to myself.--“Whatever company is agreeable to you, sir,” I answered aloud.

‘“O, there is a little too much of this universal spirit of submission, an excellent disposition in action, but your constantly repeating the jargon of it puts me in mind of the eternal salaams of our black dependents in the East. In short, Julia, I know you have a relish for society, and I intend to invite a young person, the daughter of a deceased friend, to spend a few months with us.”

‘“Not a governess, for the love of Heaven, papa!” exclaimed poor I, my fears at that moment totally getting the better of my prudence.

‘“No, not a governess, Miss Mannering,” replied the Colonel, somewhat sternly, “but a young lady from whose excellent example, bred as she has been in the school of adversity, I trust you may learn the art to govern yourself.”

‘To answer this was trenching upon too dangerous ground, so there was a pause.

‘“Is the young lady a Scotchwoman, papa?”

‘“Yes"--drily enough.

‘“Has she much of the accent, sir?”

‘“Much of the devil!” answered my father hastily; “do you think I care about a’s and aa’s, and i’s and ee’s,? I tell you, Julia, I am serious in the matter. You have a genius for friendship, that is, for running up intimacies which you call such.” (Was not this very harshly said, Matilda?) “Now I wish to give you an opportunity at least to make one deserving friend, and therefore I have resolved that this young lady shall be a member of my family for some months, and I expect you will pay to her that attention which is due to misfortune and virtue.”

‘“Certainly, sir. Is my future friend red-haired?”

‘He gave me one of his stern glances; you will say, perhaps, I deserved it; but I think the deuce prompts me with teasing questions on some occasions.

‘“She is as superior to you, my love, in personal appearance as in prudence and affection for her friends.”

‘“Lord, papa, do you think that superiority a recommendation? Well, sir, but I see you are going to take all this too seriously; whatever the young lady may be, I am sure, being recommended by you, she shall have no reason to complain of my want of attention.” After a pause--“Has she any attendant? because you know I must provide for her proper accommodation if she is without one.”

‘“N--no--no, not properly an attendant; the chaplain who lived with her father is a very good sort of man, and I believe I shall make room for him in the house.”

‘“Chaplain, papa? Lord bless us!”

‘“Yes, Miss Mannering, chaplain; is there anything very new in that word? Had we not a chaplain at the Residence, when we were in India?”

‘“Yes, papa, but you was a commandant then.”

‘“So I will be now, Miss Mannering, in my own family at least.”

‘“Certainly, sir. But will he read us the Church of England service?”

Zaid n. adwan

‘The apparent simplicity with which I asked this question got the better of his gravity. “Come, Julia,” he said, “you are a sad girl, but I gain nothing by scolding you. Of these two strangers, the young lady is one whom you cannot fail, I think, to love; the person whom, for want of a better term, I called chaplain, is a very worthy, and somewhat ridiculous personage, who will never find out you laugh at him if you don’t laugh very loud indeed.”

‘“Dear papa, I am delighted with that part of his character. But pray, is the house we are going to as pleasantly situated as this?”

‘“Not perhaps as much to your taste; there is no lake under the windows, and you will be under the necessity of having all your music within doors.”

‘This last coup de main ended the keen encounter of our wits, for you may believe, Matilda, it quelled all my courage to reply.

‘Yet my spirits, as perhaps will appear too manifest from this dialogue, have risen insensibly, and, as it were, in spite of myself. Brown alive, and free, and in England! Embarrassment and anxiety I can and must endure. We leave this in two days for our new residence. I shall not fail to let you know what I think of these Scotch inmates, whom I have but too much reason to believe my father means to quarter in his house as a brace of honourable spies; a sort of female Rozencrantz and reverend Guildenstern, one in tartan petticoats, the other in a cassock. What a contrast to the society I would willingly have secured to myself! I shall write instantly on my arriving at our new place of abode, and acquaint my dearest Matilda with the farther fates of--her

‘JULIA MANNERING.’

zaid n. adwan

CHAPTER XIX

Which sloping hills around inclose,
Where many a beech and brown oak grows
Beneath whose dark and branching bowers
Its tides a far-fam'd river pours,
By natures beauties taught to please,
Sweet Tusculan of rural easel

WARTON.

Woodbourne, the habitation which Mannering, by Mr. Mac-Morlan's mediation, had hired for a season, was a large comfortable mansion, snugly situated beneath a hill covered with wood, which shrouded the house upon the north and east; the front looked upon a little lawn bordered by a grove of old trees; beyond were some arable fields, extending down to the river, which was seen from the windows of the house. A tolerable, though old-fashioned garden, a well-stocked dove-cot, and the possession of any quantity of ground which the convenience of the family might require, rendered the place in every respect suitable, as the advertisements have it, 'for the accommodation of a genteel family.'

Here, then, Mannering resolved, for some time at least, to set up the staff of his rest. Though an East-Indian, he was not partial to an ostentatious display of wealth. In fact, he was too proud a man to be a vain one. He resolved, therefore, to place himself upon the footing of a country gentleman of easy fortune, without assuming, or permitting his household to assume, any of the faste which then was considered as characteristic of a nabob.

He had still his eye upon the purchase of Ellangowan, which Mac-Morlan conceived Mr. Glossin would be compelled to part with, as some of the creditors disputed his title to retain so large a part of the purchase-money in his own hands, and his power to pay it was much questioned. In that case Mac-Morlan was assured he would readily give up his bargain, if tempted with something above the price which he had stipulated to pay. It may seem strange that Mannering was so much attached to a spot which he had only

seen once, and that for a short time, in early life. But the circumstances which passed there had laid a strong hold on his imagination. There seemed to be a fate which conjoined the remarkable passages of his own family history with those of the inhabitants of Ellangowan, and he felt a mysterious desire to call the terrace his own from which he had read in the book of heaven a fortune strangely accomplished in the person of the infant heir of that family, and corresponding so closely with one which had been strikingly fulfilled in his own. Besides, when once this thought had got possession of his imagination, he could not, without great reluctance, brook the idea of his plan being defeated, and by a fellow like Glossin. So pride came to the aid of fancy, and both combined to fortify his resolution to buy the estate if possible.

Let us do Mannering justice. A desire to serve the distressed had also its share in determining him. He had considered the advantage which Julia might receive from the company of Lucy Bertram, whose genuine prudence and good sense could so surely be relied upon. This idea had become much stronger since Mac-Morlan had confided to him, under the solemn seal of secrecy, the whole of her conduct towards young Hazlewood. To propose to her to become an inmate in his family, if distant from the scenes of her youth and the few whom she called friends, would have been less delicate; but at Woodbourne she might without difficulty be induced to become the visitor of a season, without being depressed into the situation of an humble companion. Lucy Bertram, with some hesitation, accepted the invitation to reside a few weeks with Miss Mannering. She felt too well that, however the Colonel's delicacy might disguise the truth, his principal motive was a generous desire to afford her his countenance and protection, which his high connexions, and higher character, were likely to render influential in the neighbourhood.

About the same time the orphan girl received a letter from Mrs. Bertram, the relation to whom she had written, as cold and comfortless as could well be imagined. It inclosed, indeed, a small sum of money, but strongly recommended economy, and that Miss

Bertram should board herself in some quiet family, either at Kippletringan or in the neighbourhood, assuring her that, though her own income was very scanty, she would not see her kinswoman want. Miss Bertram shed some natural tears over this cold-hearted epistle; for in her mother's time this good lady had been a guest at Ellangowan for nearly three years, and it was only upon succeeding to a property of about L400 a year that she had taken farewell of that hospitable mansion, which otherwise might have had the honour of sheltering her until the death of its owner. Lucy was strongly inclined to return the paltry donation, which, after some struggles with avarice, pride had extorted from the old lady. But on consideration she contented herself with writing that she accepted it as a loan, which, she hoped in a short time to repay, and consulted her relative upon the invitation she had received from Colonel and Miss Mannering. This time the answer came in course of post, so fearful was Mrs. Bertram that some frivolous delicacy, or nonsense, as she termed it, might induce her cousin to reject such a promising offer, and thereby at the same time to leave herself still a burden upon her relations. Lucy, therefore, had no alternative, unless she preferred continuing a burden upon the worthy Mac-Morlans, who were too liberal to be rich. Those kinsfolk who formerly requested the favour of her company had of late either silently, or with expressions of resentment that she should have preferred Mac-Morlan's invitation to theirs, gradually withdrawn their notice.

The fate of Dominie Sampson would have been deplorable had it depended upon any one except Mannering, who was an admirer of originality, for a separation from Lucy Bertram would have certainly broken his heart. Mac-Morlan had given a full account of his proceedings towards the daughter of his patron. The answer was a request from Mannering to know whether the Dominie still possessed that admirable virtue of taciturnity by which he was so notably distinguished at Ellangowan. Mac-Morlan replied in the affirmative. 'Let Mr. Sampson know,' said the Colonel's next letter, 'that I shall want his assistance to catalogue and put in order the library of my uncle, the bishop, which I have ordered to be sent down by sea. I shall also want him to copy and

arrange some papers. Fix his salary at what you think befitting. Let the poor man be properly dressed, and accompany his young lady to Woodbourne.'

Honest Mac-Morlan received this mandate with great joy, but pondered much upon executing that part of it which related to newly attiring the worthy Dominie. He looked at him with a scrutinising eye, and it was but too plain that his present garments were daily waxing more deplorable. To give him money, and bid him go and furnish himself, would be only giving him the means of making himself ridiculous; for when such a rare event arrived to Mr. Sampson as the purchase of new garments, the additions which he made to his wardrobe by the guidance of his own taste usually brought all the boys of the village after him for many days. On the other hand, to bring a tailor to measure him, and send home his clothes, as for a school-boy, would probably give offence. At length Mac-Morlan resolved to consult Miss Bertram, and request her interference. She assured him that, though she could not pretend to superintend a gentleman's wardrobe, nothing was more easy than to arrange the Dominie's.

'At Ellangowan,' she said, 'whenever my poor father thought any part of the Dominie's dress wanted renewal, a servant was directed to enter his room by night, for he sleeps as fast as a dormouse, carry off the old vestment, and leave the new one; nor could any one observe that the Dominie exhibited the least consciousness of the change put upon him on such occasions.'

Mac-Morlan, in conformity with Miss Bertram's advice, procured a skilful artist, who, on looking at the Dominie attentively, undertook to make for him two suits of clothes, one black and one raven-grey, and even engaged that they should fit him--as well at least (so the tailor qualified his enterprise) as a man of such an out-of-the-way build could be fitted by merely human needles and shears. When this fashioner had accomplished his task, and the dresses were brought home, Mac-Morlan, judiciously resolving to accomplish his purpose by degrees, withdrew that evening an important part of his dress, and substituted the new article of raiment in its stead. Perceiving that

this passed totally without notice, he next ventured on the waistcoat, and lastly on the coat. When fully metamorphosed, and arrayed for the first time in his life in a decent dress, they did observe that the Dominie seemed to have some indistinct and embarrassing consciousness that a change had taken place on his outward man. Whenever they observed this dubious expression gather upon his countenance, accompanied with a glance that fixed now upon the sleeve of his coat, now upon the knees of his breeches, where he probably missed some antique patching and darning, which, being executed with blue thread upon a black ground, had somewhat the effect of embroidery, they always took care to turn his attention into some other channel, until his garments, 'by the aid of use, cleaved to their mould.' The only remark he was ever known to make on the subject was, that 'the air of a town like Kippletringan seemed favourable unto wearing apparel, for he thought his coat looked almost as new as the first day he put it on, which was when he went to stand trial for his license as a preacher.'

When the Dominie first heard the liberal proposal of Colonel Mannering, he turned a jealous and doubtful glance towards Miss Bertram, as if he suspected that the project involved their separation; but when Mr. Mac-Morlan hastened to explain that she would be a guest at Woodbourne for some time, he rubbed his huge hands together, and burst into a portentous sort of chuckle, like that of the Afrite in the tale of 'The Caliph Vathek.' After this unusual explosion of satisfaction, he remained quite passive in all the rest of the transaction.

It had been settled that Mr. and Mrs. Mac-Morlan should take possession of the house a few days before Mannering's arrival, both to put everything in perfect order and to make the transference of Miss Bertram's residence from their family to his as easy and delicate as possible. Accordingly, in the beginning of the month of December the party were settled at Woodbourne.

Zaid M. adwan

CHAPTER XX

A gigantic genius fit to grapple with whole libraries

--BOSWELL'S LIFE OF JOHNSON

The appointed day arrived when the Colonel and Miss Mannering were expected at Woodbourne. The hour was fast approaching, and the little circle within doors had each their separate subjects of anxiety. Mac-Morlan naturally desired to attach to himself the patronage and countenance of a person of Mannering's wealth and consequence. He was aware, from his knowledge of mankind, that Mannering, though generous and benevolent, had the foible of expecting and exacting a minute compliance with his directions. He was therefore racking his recollection to discover if everything had been arranged to meet the Colonel's wishes and instructions, and, under this uncertainty of mind, he traversed the house more than once from the garret to the stables. Mrs. Mac-Morlan revolved in a lesser orbit, comprehending the dining-parlour, housekeeper's room, and kitchen. She was only afraid that the dinner might be spoiled, to the discredit of her housewifely accomplishments. Even the usual passiveness of the Dominie was so far disturbed that he twice went to the window which looked out upon the avenue, and twice exclaimed, 'Why tarry the wheels of their chariot?' Lucy, the most quiet of the expectants, had her own melancholy thoughts. She was now about to be consigned to the charge, almost to the benevolence, of strangers, with whose character, though hitherto very amiably, displayed, she was but imperfectly acquainted. The moments, therefore, of suspense passed anxiously and heavily.

Zaid H. adwan

At length the trampling of horses and the sound of wheels were heard. The servants, who had already arrived, drew up in the hall to receive their master and mistress, with an importance and EMPRESSEMENT which to Lucy, who had never been accustomed to society, or witnessed what is called the manners of the great, had something alarming. Mac-Morlan went to the door to receive the master and mistress of the family, and in a few moments they were in the drawing-room.

Mannering, who had travelled as usual on horseback, entered with his daughter hanging upon his arm. She was of the middle size, or rather less, but formed with much elegance; piercing dark eyes, and jet-black hair of great length, corresponded with the vivacity and intelligence of features in which were blended a little haughtiness, and a little bashfulness, a great deal of shrewdness, and some power of humorous sarcasm. 'I shall not like her,' was the result of Lucy Bertram's first glance; 'and yet; I rather think I shall,' was the thought excited by the second.

Miss Mannering was furred and mantled up to the throat against the severity of the weather; the Colonel in his military great-coat. He bowed to Mrs. Mac-Morlan, whom his daughter also acknowledged with a fashionable courtesy, not dropped so low as at all to incommode her person. The Colonel then led his daughter up to Miss Bertram, and, taking the hand of the latter, with an air of great kindness and almost paternal affection, he said, 'Julia, this is the young lady whom I hope our good friends have prevailed on to honour our house with a long visit. I shall be much gratified indeed if you can render Woodbourne as pleasant to Miss Bertram as Ellangowan was to me when I first came as a wanderer into this country.'

The young lady courtesied acquiescence, and took her new friend's hand. Mannering now turned his eye upon the Dominie, who had made bows since his entrance into the room, sprawling out his leg, and bending his back like an automaton, which continues to repeat the same movement until the motion is stopt by the artist. 'My good friend, Mr. Sampson,' said Mannering, introducing him to his daughter, and darting at the same

time a reproving glance at the damsel, notwithstanding he had himself some disposition to join her too obvious inclination to risibility; ‘this gentleman, Julia, is to put my books in order when they arrive, and I expect to derive great advantage from his extensive learning.’

‘I am sure we are obliged to the gentleman, papa, and, to borrow a ministerial mode of giving thanks, I shall never forget the extraordinary countenance he has been pleased to show us. But, Miss Bertram,’ continued she hastily, for her father’s brows began to darken, ‘we have travelled a good way; will you permit me to retire before dinner?’

This intimation dispersed all the company save the Dominie, who, having no idea of dressing but when he was to rise, or of undressing but when he meant to go to bed, remained by himself, chewing the cud of a mathematical demonstration, until the company again assembled in the drawing-room, and from thence adjourned to the dining-parlour.

When the day was concluded, Mannering took an opportunity to hold a minute’s conversation with his daughter in private.

‘How do you like your guests, Julia?’

‘O, Miss Bertram of all things; but this is a most original parson; why, dear sir, no human being will be able to look at him without laughing.’

‘While he is under my roof, Julia, every one must learn to do so.’

‘Lord, papa, the very footmen could not keep their gravity!’

‘Then let them strip off my livery,’ said the Colonel, ‘and laugh at their leisure. Mr. Sampson is a man whom I esteem for his simplicity and benevolence of character.’

‘O, I am convinced of his generosity too,’ said this lively lady; ‘he cannot lift a spoonful of soup to his mouth without bestowing a share on everything round.’

‘Julia, you are incorrigible; but remember I expect your mirth on this subject to be under such restraint that it shall neither offend this worthy man’s feelings nor those of

Zaid n. adwan

Miss Bertram, who may be more apt to feel upon his account than he on his own. And so, goodnight, my dear; and recollect that, though Mr. Sampson has certainly not sacrificed to the graces, there are many things in this world more truly deserving of ridicule than either awkwardness of manners or simplicity of character.'

In a day or two Mr. and Mrs. Mac-Morlan left Woodbourne, after taking an affectionate farewell of their late guest. The household were now settled in their new quarters. The young ladies followed their studies and amusements together. Colonel Mannering was agreeably surprised to find that Miss Bertram was well skilled in French and Italian, thanks to the assiduity of Dominie Sampson, whose labour had silently made him acquainted with most modern as well as ancient languages. Of music she knew little or nothing, but her new friend undertook to give her lessons, in exchange for which she was to learn from Lucy the habit of walking, and the art of riding, and the courage necessary to defy the season. Mannering was careful to substitute for their amusement in the evening such books as might convey some solid instruction with entertainment, and, as he read aloud with great skill and taste, the winter nights passed pleasantly away.

Society was quickly formed where there were so many inducements. Most of the families of the neighbourhood visited Colonel Mannering, and he was soon able to select from among them such as best suited his taste and habits. Charles Hazlewood held a distinguished place in his favour, and was a frequent visitor, not without the consent and approbation of his parents; for there was no knowing, they thought, what assiduous attention might produce, and the beautiful Miss Mannering, of high family, with an Indian fortune, was a prize worth looking after. Dazzled with such a prospect, they never considered the risk which had once been some object of their apprehension, that his boyish and inconsiderate fancy might form an attachment to the penniless Lucy Bertram, who had nothing on earth to recommend her but a pretty face, good birth, and a most amiable disposition. Mannering was more prudent. He considered himself acting

as Miss Bertram's guardian, and, while he did not think it incumbent upon him altogether to check her intercourse with a young gentleman for whom, excepting in wealth, she was a match in every respect, he laid it under such insensible restraints as might prevent any engagement or ECLAIRCISSEMENT taking place until the young man should have seen a little more of life and of the world, and have attained that age when he might be considered as entitled to judge for himself in the matter in which his happiness was chiefly interested.

While these matters engaged the attention of the other members of the Woodbourne family, Dominie Sampson was occupied, body and soul, in the arrangement of the late bishop's library, which had been sent from Liverpool by sea, and conveyed by thirty or forty carts from the sea-port at which it was landed. Sampson's joy at beholding the ponderous contents of these chests arranged upon the floor of the large apartment, from whence he was to transfer them to the shelves, baffles all description. He grinned like an ogre, swung his arms like the sails of a wind-mill, shouted 'Prodigious' till the roof rung to his raptures. 'He had never,' he said, 'seen so many books together, except in the College Library'; and now his dignity and delight in being superintendent of the collection raised him, in his own opinion, almost to the rank of the academical librarian, whom he had always regarded as the greatest and happiest man on earth. Neither were his transports diminished upon a hasty examination of the contents of these volumes. Some, indeed, of BELLES LETTRES, poems, plays, or memoirs he tossed indignantly aside, with the implied censure of'psha, or 'frivolous' but the greater and bulkier part of the collection bore a very different character. The deceased prelate, a divine of the old and deeply-learned cast, had loaded his shelves with volumes which displayed the antique and venerable attributes so happily described by a modern poet:--

That weight of wood, with leathern coat o'erlaid,
Those ample clasps of solid metal made,
The close-press'd leaves unoped for many an age,
The dull red edging of the well-fill'd page,
On the broad back the stubborn ridges roll'd,
Where yet the title stands in tarnish'd gold.

zaid n. adwan

Books of theology and controversial divinity, commentaries, and polyglots, sets of the Fathers, and sermons which might each furnish forth ten brief discourses of modern date, books of science, ancient and modern, classical authors in their best and rarest forms--such formed the late bishop's venerable library, and over such the eye of Dominie Sampson gloated with rapture. He entered them in the catalogue in his best running hand, forming each letter with the accuracy of a lover writing a valentine, and placed each individually on the destined shelf with all the reverence which I have seen a lady pay to a jar of old china. With all this zeal his labours advanced slowly. He often opened a volume when halfway up the library steps, fell upon some interesting passage, and, without shifting his inconvenient posture, continued immersed in the fascinating perusal until the servant pulled him by the skirts to assure him that dinner waited. He then repaired to the parlour, bolted his food down his capacious throat in squares of three inches, answered ay and no at random to whatever question was asked at him, and again hurried back to the library, as soon as his napkin was removed, and sometimes with it hanging round his neck like a pinafore;--

How happily the days Of Thalaba went by!

And, having thus left the principal characters of our tale in a situation which, being sufficiently comfortable to themselves, is, of course, utterly uninteresting to the reader, we take up the history of a person who has as yet only been named, and who has all the interest that uncertainty and misfortune can give.

zain.adwan

CHAPTER XXI

What say'st thou, Wise One? that all powerful Love
Can fortune's strong impediments remove,
Nor is it strange that worth should wed to worth,
The pride of genius with the pride of birth.

CRABBE.

V. Brown--I will not give at full length his thrice unhappy name--had been from infancy a ball for fortune to spurn at; but nature had given him that elasticity of mind which rises higher from the rebound. His form was tall, manly, and active, and his features corresponded with his person; for, although far from regular, they had an expression of intelligence and good-humour, and when he spoke, or was particularly animated, might be decidedly pronounced interesting. His manner indicated the military profession, which had been his choice, and in which he had now attained the rank of captain, the person who succeeded Colonel Mannering in his command having laboured to repair the injustice which Brown had sustained by that gentleman's prejudice against him. But this, as well as his liberation from captivity, had taken place after Mannering left India. Brown followed at no distant period, his regiment being recalled home. His first inquiry was after the family of Mannering, and, easily learning their route northward, he followed it with the purpose of resuming his addresses to Julia. With her father he deemed he had no measures to keep; for, ignorant of the more venomous belief which had been instilled into the Colonel's mind, he regarded him as an oppressive aristocrat, who had used his power as a commanding officer to deprive him of the preferment due to his behaviour, and who had forced upon him a personal quarrel

without any better reason than his attentions to a pretty young woman, agreeable to herself, and permitted and countenanced by her mother. He was determined, therefore, to take no rejection unless from the young lady herself, believing that the heavy misfortunes of his painful wound and imprisonment were direct injuries received from the father, which might dispense with his using much ceremony towards him. How far his scheme had succeeded when his nocturnal visit was discovered by Mr. Mervyn, our readers are already informed.

Upon this unpleasant occurrence Captain Brown absented himself from the inn in which he had resided under the name of Dawson, so that Colonel Mannering's attempts to discover and trace him were unavailing. He resolved, however, that no difficulties should prevent his continuing his enterprise while Julia left him a ray of hope. The interest he had secured in her bosom was such as she had been unable to conceal from him, and with all the courage of romantic gallantry he determined upon perseverance. But we believe the reader will be as well pleased to learn his mode of thinking and intention from his own communication to his special friend and confidant, Captain Delaserre, a Swiss gentleman who had a company in his regiment.

EXTRACT

'Let me hear from you soon, dear Delaserre. Remember, I can learn nothing about regimental affairs but through your friendly medium, and I long to know what has become of Ayre's court-martial, and whether Elliot gets the majority; also how recruiting comes on, and how the young officers like the mess. Of our kind friend the Lieutenant-Colonel I need ask nothing; I saw him as I passed through Nottingham, happy in the bosom of his family. What a happiness it is, Philip, for us poor devils, that we have a little resting-place between the camp and the grave, if we can manage to escape disease, and steel, and lead, and the effects of hard living. A retired old soldier is always a graceful and respected character. He grumbles a little now and then, but then his is licensed murmuring; were a lawyer, or a physician, or a clergyman to breathe a

complaint of hard luck or want of preferment, a hundred tongues would blame his own incapacity as the cause. But the most stupid veteran that ever faltered out the thrice-told tale of a siege and a battle, and a cock and a bottle, is listened to with sympathy and reverence when he shakes his thin locks and talks with indignation of the boys that are put over his head. And you and I, Delaserre, foreigners both--for what am I the better that I was originally a Scotchman, since, could I prove my descent, the English would hardly acknowledge me a countryman?--we may boast that we have fought out our preferment, and gained that by the sword which we had not money to compass otherwise. The English are a wise people. While they praise themselves, and affect to undervalue all other nations, they leave us, luckily, trap-doors and back-doors open, by which we strangers, less favoured by nature, may arrive at a share of their advantages. And thus they are in some respects like a boastful landlord, who exalts the value and flavour of his six-years-old mutton, while he is delighted to dispense a share of it to all the company. In short, you, whose proud family, and I, whose hard fate, made us soldiers of fortune, have the pleasant recollection that in the British service, stop where we may upon our career, it is only for want of money to pay the turnpike, and not from our being prohibited to travel the road. If, therefore, you can persuade little Weischel to come into OURS, for God's sake let him buy the ensigncy, live prudently, mind his duty, and trust to the fates for promotion.

'And now, I hope you are expiring with curiosity to learn the end of my romance. I told you I had deemed it convenient to make a few days' tour on foot among the mountains of Westmoreland with Dudley, a young English artist with whom I have formed some acquaintance. A fine fellow this, you must know, Delaserre: he paints tolerably, draws beautifully, converses well, and plays charmingly on the flute; and, though thus well entitled to be a coxcomb of talent, is, in fact, a modest unpretending young man. On our return from our little tour I learned that the enemy had been reconnoitring. Mr. Mervyn's barge had crossed the lake, I was informed by my landlord, with the squire himself and a visitor.

‘“What sort of person, landlord?”

‘“Why, he was a dark officer-looking mon, at they called Colonel. Squoire Mervyn questioned me as close as I had been at ‘sizes. I had guess, Mr. Dawson” (I told you that was my feigned name), “but I tould him nought of your vagaries, and going out a-laking in the mere a-noights, not I; an I can make no sport, I’se spoil none; and Squoire Mervyn’s as cross as poy-crust too, mon; he’s aye maundering an my guests but land beneath his house, though it be marked for the fourth station in the survey. Noa, noa, e’en let un smell things out o’ themselves for Joe Hodges.”

‘You will allow there was nothing for it after this but paying honest Joe Hodges’s bill and departing, unless I had preferred making him my confidant, for which I felt in no way inclined. Besides, I learned that our ci-devant Colonel was on full retreat for Scotland, carrying off poor Julia along with him. I understand from those who conduct the heavy baggage that he takes his winter quarters at a place called Woodbourne, in ---shire in Scotland. He will be all on the alert just now, so I must let him enter his entrenchments without any new alarm. And then, my good Colonel, to whom I owe so many grateful thanks, pray look to your defence.

‘I protest to you, Delaserre, I often think there is a little contradiction enters into the ardour of my pursuit. I think I would rather bring this haughty insulting man to the necessity of calling his daughter Mrs. Brown than I would wed her with his full consent, and with the King’s permission to change my name for the style and arms of Mannering, though his whole fortune went with them. There is only one circumstance that chills me a little: Julia is young and romantic. I would not willingly hurry her into a step which her riper years might disapprove; no--nor would I like to have her upbraid me, were it but with a glance of her eye, with having ruined her fortunes, far less give her reason to say, as some have not been slow to tell their lords, that, had I left her time for consideration, she would have been wiser and done better. No, Delaserre, this must not be. The picture presses close upon me, because I am aware a girl in Julia’s situation has

no distinct and precise idea of the value of the sacrifice she makes. She knows difficulties only by name; and, if she thinks of love and a farm, it is a ferme ornee, such as is only to be found in poetic description or in the park of a gentleman of twelve thousand a year. She would be ill prepared for the privations of that real Swiss cottage we have so often talked of, and for the difficulties which must necessarily surround us even before we attained that haven. This must be a point clearly ascertained. Although Julia's beauty and playful tenderness have made an impression on my heart never to be erased, I must be satisfied that she perfectly understands the advantages she foregoes before she sacrifices them for my sake.

'Am I too proud, Delaserre, when I trust that even this trial may terminate favourably to my wishes? Am I too vain when I suppose that the few personal qualities which I possess, with means of competence, however moderate, and the determination of consecrating my life to her happiness, may make amends for all I must call upon her to forego? Or will a difference of dress, of attendance, of style, as it is called, of the power of shifting at pleasure the scenes in which she seeks amusement--will these outweigh in her estimation the prospect of domestic happiness and the interchange of unabating affection? I say nothing of her father: his good and evil qualities are so strangely mingled that the former are neutralised by the latter; and that which she must regret as a daughter is so much blended with what she would gladly escape from, that I place the separation of the father and child as a circumstance which weighs little in her remarkable case. Meantime I keep up my spirits as I may. I have incurred too many hardships and difficulties to be presumptuous or confident in success, and I have been too often and too wonderfully extricated from them to be despondent.

'I wish you saw this country. I think the scenery would delight you. At least it often brings to my recollection your glowing descriptions of your native country. To me it has in a great measure the charm of novelty. Of the Scottish hills, though born among them, as I have always been assured, I have but an indistinct recollection. Indeed, my

memory rather dwells upon the blank which my youthful mind experienced in gazing on the levels of the isle of Zealand, than on anything which preceded that feeling; but I am confident, from that sensation as well as from the recollections which preceded it, that hills and rocks have been familiar to me at an early period, and that, though now only remembered by contrast, and by the blank which I felt while gazing around for them in vain, they must have made an indelible impression on my infant imagination. I remember, when we first mounted that celebrated pass in the Mysore country, while most of the others felt only awe and astonishment at the height and grandeur of the scenery, I rather shared your feelings and those of Cameron, whose admiration of such wild rocks was blended with familiar love, derived from early association. Despite my Dutch education, a blue hill to me is as a friend, and a roaring torrent like the sound of a domestic song that hath soothed my infancy. I never felt the impulse so strongly as in this land of lakes and mountains, and nothing grieves me so much as that duty prevents your being with me in my numerous excursions among recesses. Some drawings I have attempted, but I succeed vilely. Dudley, on the contrary, draws delightfully, with that rapid touch which seems like magic; while I labour and botch, and make this too heavy and that too light, and produce at last a base caricature. I must stick to the flageolet, for music is the only one of the fine arts which deigns to acknowledge me.

‘Did you know that Colonel Mannering was a draughtsman? I believe not, for he scorned to display his accomplishments to the view of a subaltern. He draws beautifully, however. Since he and Julia left Mervyn Hall, Dudley was sent for there. The squire, it seems, wanted a set of drawings made up, of which Mannering had done the first four, but was interrupted by his hasty departure in his purpose of completing them. Dudley says he has seldom seen anything so masterly, though slight; and each had attached to it a short poetical description. Is Saul, you will say, among the prophets? Colonel Mannering write poetry! Why, surely this man must have taken all the pains to conceal his accomplishments that others do to display theirs. How reserved and unsociable he appeared among us! how little disposed to enter into any conversation which could

become generally interesting! And then his attachment to that unworthy Archer, so much below him in every respect; and all this because he was the brother of Viscount Archerfield, a poor Scottish peer! I think, if Archer had longer survived the wounds in the affair of Cuddyboram, he would have told something that might have thrown light upon the inconsistencies of this singular man's character. He repeated to me more than once, "I have that to say which will alter your hard opinion of our late Colonel." But death pressed him too hard; and if he owed me any atonement, which some of his expressions seemed to imply, he died before it could be made.

'I propose to make a further excursion through this country while this fine frosty weather serves, and Dudley, almost as good a walker as myself, goes with me for some part of the way. We part on the borders of Cumberland, when he must return to his lodgings in Marybone, up three pair of stairs, and labour at what he calls the commercial part of his profession. There cannot, he says, be such a difference betwixt any two portions of existence as between that in which the artist, if an enthusiast, collects the subjects of his drawings and that which must necessarily be dedicated to turning over his portfolio and exhibiting them to the provoking indifference, or more provoking criticism, of fashionable amateurs. "During the summer of my year," says Dudley, "I am as free as a wild Indian, enjoying myself at liberty amid the grandest scenes of nature; while during my winters and springs I am not only cabined, cribbed, and confined in a miserable garret, but condemned to as intolerable subservience to the humour of others, and to as indifferent company, as if I were a literal galley slave." I have promised him your acquaintance, Delaserre; you will be delighted with his specimens of art, and he with your Swiss fanaticism for mountains and torrents.

'When I lose Dudley's company, I am informed that I can easily enter Scotland by stretching across a wild country in the upper part of Cumberland; and that route I shall follow, to give the Colonel time to pitch his camp ere I reconnoitre his position. Adieu! Delaserre. I shall hardly find another opportunity of writing till I reach Scotland.'

CHAPTER XXII

Jog on, jog on, the footpath way,
And merrily bend the stile-a,
A merry heart goes all the day,
A sad one tires in a mile-a.

--Winter's Tale.

Let the reader conceive to himself a clear frosty November morning, the scene an open heath, having for the background that huge chain of mountains in which Skiddaw and Saddleback are preeminent; let him look along that BLIND ROAD, by which I mean the track so slightly marked by the passengers' footsteps that it can but be traced by a slight shade of verdure from the darker heath around it, and, being only visible to the eye when at some distance, ceases to be distinguished while the foot is actually treading it; along this faintly-traced path advances the object of our present narrative. His firm step, his erect and free carriage, have a military air which corresponds well with his well-proportioned limbs and stature of six feet high. His dress is so plain and simple that it indicates nothing as to rank; it may be that of a gentleman who travels in this manner for his pleasure, or of an inferior person of whom it is the proper and usual garb. Nothing can be on a more reduced scale than his travelling equipment. A volume of Shakspeare in each pocket, a small bundle with a change of linen slung across his shoulders, an oaken cudgel in his hand, complete our pedestrian's accommodations, and in this equipage we present him to our readers.

Brown had parted that morning from his friend Dudley, and begun his solitary walk towards Scotland.

The first two or three miles were rather melancholy, from want of the society to which he had of late been accustomed. But this unusual mood of mind soon gave way to the influence of his natural good spirits, excited by the exercise and the bracing effects of the frosty air. He whistled as he went along, not 'from want of thought,' but to give vent to those buoyant feelings which he had no other mode of expressing. For each peasant whom he chanced to meet he had a kind greeting or a good-humoured jest; the hardy Cumbrians grinned as they passed, and said, 'That's a kind heart, God bless un!' and the market-girl looked more than once over her shoulder at the athletic form, which corresponded so well with the frank and blythe address of the stranger. A rough terrier dog, his constant companion, who rivalled his master in glee, scampered at large in a thousand wheels round the heath, and came back to jump up on him and assure him that he participated in the pleasure of the journey. Dr. Johnson thought life had few things better than the excitation produced by being whirled rapidly along in a post-chaise; but he who has in youth experienced the confident and independent feeling of a stout pedestrian in an interesting country, and during fine weather, will hold the taste of the great moralist cheap in comparison.

Part of Brown's view in choosing that unusual track which leads through the eastern wilds of Cumberland into Scotland, had been a desire to view the remains of the celebrated Roman Wall, which are more visible in that direction than in any other part of its extent. His education had been imperfect and desultory; but neither the busy scenes in which he had been engaged, nor the pleasures of youth, nor the precarious state of his own circumstances, had diverted him from the task of mental improvement. 'And this then is the Roman Wall,' he said, scrambling up to a height which commanded the course of that celebrated work of antiquity. 'What a people! whose labours, even at this extremity of their empire, comprehended such space, and were executed upon a

scale of such grandeur! In future ages, when the science of war shall have changed, how few traces will exist of the labours of Vauban and Coehorn, while this wonderful people's remains will even then continue to interest and astonish posterity! Their fortifications, their aqueducts, their theatres, their fountains, all their public works, bear the grave, solid, and majestic character of their language; while our modern labours, like our modern tongues, seem but constructed out of their fragments.' Having thus moralised, he remembered that he was hungry, and pursued his walk to a small public-house, at which he proposed to get some refreshment.

The alehouse, for it was no better, was situated in the bottom of a little dell, through which trilled a small rivulet. It was shaded by a large ash tree, against which the clay-built shed that served the purpose of a stable was erected, and upon which it seemed partly to recline. In this shed stood a saddled horse, employed in eating his corn. The cottages in this part of Cumberland partake of the rudeness which characterises those of Scotland. The outside of the house promised little for the interior, notwithstanding the vaunt of a sign, where a tankard of ale voluntarily decanted itself into a tumbler, and a hieroglyphical scrawl below attempted to express a promise of 'good entertainment for man and horse.' Brown was no fastidious traveller: he stopped and entered the cabaret. [Footnote: See Note 2.]

The first object which caught his eye in the kitchen was a tall, stout, country-looking man in a large jockey great-coat, the owner of the horse which stood in the shed, who was busy discussing huge slices of cold boiled beef, and casting from time to time an eye through the window to see how his steed sped with his provender. A large tankard of ale flanked his plate of victuals, to which he applied himself by intervals. The good woman of the house was employed in baking. The fire, as is usual in that country, was on a stone hearth, in the midst of an immensely large chimney, which had two seats extended beneath the vent. On one of these sat a remarkably tall woman, in a red cloak

and slouched bonnet, having the appearance of a tinker or beggar. She was busily engaged with a short black tobacco-pipe.

At the request of Brown for some food, the landlady wiped with her mealy apron one corner of the deal table, placed a wooden trencher and knife and fork before the traveller, pointed to the round of beef, recommended Mr. Dinmont's good example, and finally filled a brown pitcher with her home-brewed. Brown lost no time in doing ample credit to both. For a while his opposite neighbour and he were too busy to take much notice of each other, except by a good-humoured nod as each in turn raised the tankard to his head. At length, when our pedestrian began to supply the wants of little Wasp, the Scotch store-farmer, for such was Mr. Dinmont, found himself at leisure to enter into conversation.

'A bonny terrier that, sir, and a fell chield at the vermin, I warrant him; that is, if he's been weel entered, for it a' lies in that.'

'Really, sir,' said Brown, 'his education has been somewhat neglected, and his chief property is being a pleasant companion.'

'Ay, sir? that's a pity, begging your pardon, it's a great pity that; beast or body, education should aye be minded. I have six terriers at hame, forbye twa couple of slow-hunds, five grews, and a wheen other dogs. There's auld Pepper and auld Mustard, and young Pepper and young Mustard, and little Pepper and little Mustard. I had them a' regularly entered, first wi' rottens, then wi' stots or weasels, and then wi' the tods and brocks, and now they fear naething that ever cam wi' a hairy skin on't.'

'I have no doubt, sir, they are thoroughbred; but, to have so many dogs, you seem to have a very limited variety of names for them?'

'O, that's a fancy of my ain to mark the breed, sir. The Deuke himsell has sent as far as Charlie's Hope to get ane o' Dandy Dinmont's Pepper and Mustard terriers. Lord, man, he sent Tam Hudson [Footnote: The real name of this veteran sportsman is now

restored.] the keeper, and sicken a day as we had wi' the foumarts and the tods, and sicken a blythe gae-down as we had again e'en! Faith, that was a night!'

'I suppose game is very plenty with you?'

'Plenty, man! I believe there's mair hares than sheep on my farm; and for the moor-fowl or the grey-fowl, they lie as thick as doos in a dookit. Did ye ever shoot a blackcock, man?'

'Really I had never even the pleasure to see one, except in the museum at Keswick.'

'There now! I could guess that by your Southland tongue. It's very odd of these English folk that come here, how few of them has seen a blackcock! I'll tell you what--ye seem to be an honest lad, and if you'll call on me, on Dandy Dinmont, at Charlie's Hope, ye shall see a blackcock, and shoot a blackcock, and eat a blackcock too, man.'

'Why, the proof of the matter is the eating, to be sure, sir; and I shall be happy if I can find time to accept your invitation.'

'Time, man? what ails ye to gae hame wi' me the now? How d' ye travel?'

'On foot, sir; and if that handsome pony be yours, I should find it impossible to keep up with you.'

'No, unless ye can walk up to fourteen mile an hour. But ye can come ower the night as far as Riccarton, where there is a public; or if ye like to stop at Jockey Grieve's at the Heuch, they would be blythe to see ye, and I am just gaun to stop and drink a dram at the door wi' him, and I would tell him you're coming up. Or stay--gudewife, could ye lend this gentleman the gudeman's galloway, and I'll send it ower the Waste in the morning wi' the callant?'

The galloway was turned out upon the fell, and was swear to catch.--'Aweel, aweel, there's nae help for't, but come up the morn at ony rate. And now, gudewife, I maun ride, to get to the Liddel or it be dark, for your Waste has but a kittle character, ye ken yoursell.'

‘Hout fie, Mr. Dinmont, that’s no like you, to gie the country an ill name. I wot, there has been nane stirred in the Waste since Sawney Culloch, the travelling-merchant, that Rowley Overdees and Jock Penny suffered for at Carlisle twa years since. There’s no ane in Bewcastle would do the like o’ that now; we be a’ true folk now.’

‘Ay, Tib, that will be when the deil’s blind; and his een’s no sair yet. But hear ye, gudewife, I have been through maist feck o’ Galloway and Dumfries-shire, and I have been round by Carlisle, and I was at the Staneshiebank Fair the day, and I would like ill to be rubbit sae near hame, so I’ll take the gate.’

‘Hae ye been in Dumfries and Galloway?’ said the old dame who sate smoking by the fireside, and who had not yet spoken a word.

‘Troth have I, gudewife, and a weary round I’ve had o’t.’

‘Then ye’ll maybe ken a place they ca’ Ellangowan?’

‘Ellangowan, that was Mr. Bertram’s? I ken the place weel eneugh. The Laird died about a fortnight since, as I heard.’

‘Died!’ said the old woman, dropping her pipe, and rising and coming forward upon the floor--’died? are you sure of that?’

‘Troth, am I,’ said Dinmont, ‘for it made nae sma’ noise in the country-side. He died just at the roup of the stocking and furniture; it stoppit the roup, and mony folk were disappointed. They said he was the last of an auld family too, and mony were sorry; for gude blude’s scarcer in Scotland than it has been.’

‘Dead!’ replied the old woman, whom our readers have already recognised as their acquaintance Meg Merrilies--’dead! that quits a’ scores. And did ye say he died without an heir?’

‘Ay did he, gudewife, and the estate’s sell’d by the same token; for they said they couldna have sell’d it if there had been an heir-male.’

‘Sell’d!’ echoed the gipsy, with something like a scream; ‘and wha durst buy Ellangowan that was not of Bertram’s blude? and wha could tell whether the bonny knave-bairn may not come back to claim his ain? wha durst buy the estate and the castle of Ellangowan?’

‘Troth, gudewife, just ane o’ thae writer chields that buys a’ thing; they ca’ him Glossin, I think.’

‘Glossin! Gibbie Glossin! that I have carried in my creels a hundred times, for his mother wasna muckle better than mysell--he to presume to buy the barony of Ellangowan! Gude be wi’ us; it is an awfu’ warld! I wished him ill; but no sic a downfa’ as a’ that neither. Wae’s me! wae’s me to think o’t!’ She remained a moment silent but still opposing with her hand the farmer’s retreat, who betwixt every question was about to turn his back, but good-humouredly stopped on observing the deep interest his answers appeared to excite.

‘It will be seen and heard of--earth and sea will not hold their peace langer! Can ye say if the same man be now the sheriff of the county that has been sae for some years past?’

‘Na, he’s got some other birth in Edinburgh, they say; but gude day, gudewife, I maun ride.’ She followed him to his horse, and, while he drew the girths of his saddle, adjusted the walise, and put on the bridle, still plied him with questions concerning Mr. Bertram’s death and the fate of his daughter; on which, however, she could obtain little information from the honest farmer.

‘Did ye ever see a place they ca’ Derncleugh, about a mile frae the Place of Ellangowan?’

‘I wot weel have I, gudewife. A wild-looking den it is, wi’ a whin auld wa’s o’ shealings yonder; I saw it when I gaed ower the ground wi’ ane that wanted to take the farm.’

‘It was a blythe bit ance!’ said Meg, speaking to herself. ‘Did ye notice if there was an auld saugh tree that’s maist blawn down, but yet its roots are in the earth, and it hangs ower the bit burn? Mony a day hae I wrought my stocking and sat on my sunkie under that saugh.’

‘Hout, deil’s i’ the wife, wi’ her saughs, and her sunkies, and Ellangowans. Godsake, woman, let me away; there’s saxpence t’ ye to buy half a mutchkin, instead o’ clavering about thae auld-warld stories.’

‘Thanks to ye, gudeman; and now ye hae answered a’ my questions, and never speired wherefore I asked them, I’ll gie you a bit canny advice, and ye maunna speir what for neither. Tib Mumps will be out wi’ the stirrup-dram in a gliffing. She’ll ask ye whether ye gang ower Willie’s Brae or through Conscowthart Moss; tell her ony ane ye like, but be sure (speaking low and emphatically) to tak the ane ye dinna tell her.’ The farmer laughed and promised, and the gipsy retreated.

‘Will you take her advice?’ said Brown, who had been an attentive listener to this conversation.

‘That will I no, the randy quean! Na, I had far rather Tib Mumps kenn’d which way I was gaun than her, though Tib’s no muckle to lippen to neither, and I would advise ye on no account to stay in the house a’ night.’

In a moment after Tib, the landlady, appeared with her stirrup-cup, which was taken off. She then, as Meg had predicted, inquired whether he went the hill or the moss road. He answered, the latter; and, having bid Brown good-bye, and again told him, ‘he depended on seeing him at Charlie’s Hope, the morn at latest,’ he rode off at a round pace.

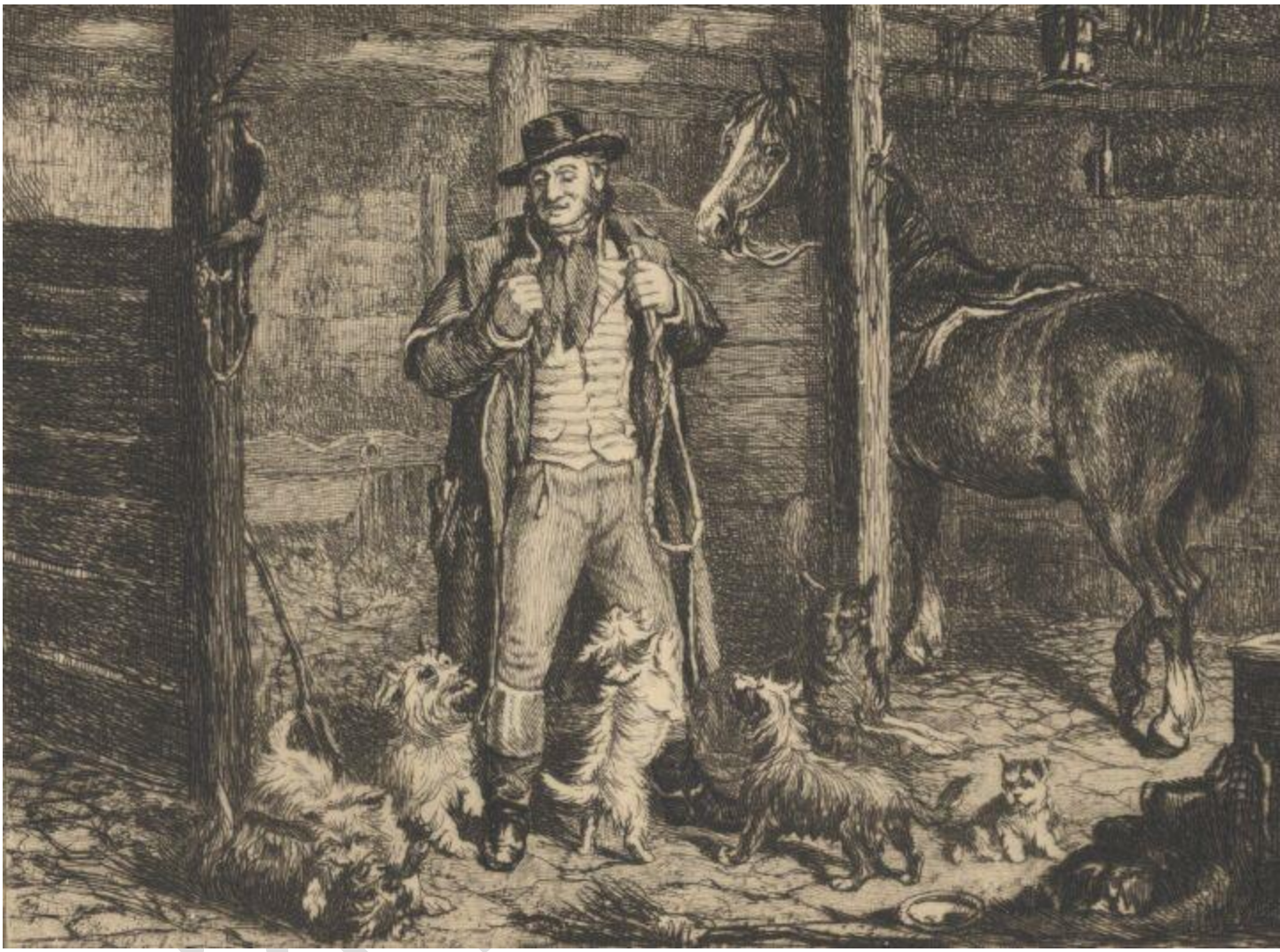
Zain. adwan

CHAPTER XXIII

Gallows and knock are too powerful on the highway

--Winter's Tale.

zaid n. adwan



ENLARGE

The hint of the hospitable farmer was not lost on Brown. But while he paid his reckoning he could not avoid repeatedly fixing his eyes on Meg Merrilies. She was in all respects the same witch-like figure as when we first introduced her at Ellangowan Place. Time had grizzled her raven locks and added wrinkles to her wild features, but her height remained erect, and her activity was unimpaired. It was remarked of this woman, as of others of the same description, that a life of action, though not of labour, gave her the perfect command of her limbs and figure, so that the attitudes into which

she most naturally threw herself were free, unconstrained, and picturesque. At present she stood by the window of the cottage, her person drawn up so as to show to full advantage her masculine stature, and her head somewhat thrown back, that the large bonnet with which her face was shrouded might not interrupt her steady gaze at Brown. At every gesture he made and every tone he uttered she seemed to give an almost imperceptible start. On his part, he was surprised to find that he could not look upon this singular figure without some emotion. 'Have I dreamed of such a figure?' he said to himself, 'or does this wild and singular-looking woman recall to my recollection some of the strange figures I have seen in our Indian pagodas?'

While he embarrassed himself with these discussions, and the hostess was engaged in rummaging out silver in change of half-a-guinea, the gipsy suddenly made two strides and seized Brown's hand. He expected, of course, a display of her skill in palmistry, but she seemed agitated by other feelings.

'Tell me,' she said, 'tell me, in the name of God, young man, what is your name, and whence you came?'

'My name is Brown, mother, and I come from the East Indies.'

'From the East Indies!' dropping his hand with a sigh; 'it cannot be then. I am such an auld fool, that everything I look on seems the thing I want maist to see. But the East Indies! that cannot be. Weel, be what ye will, ye hae a face and a tongue that puts me in mind of auld times. Good day; make haste on your road, and if ye see ony of our folk, meddle not and make not, and they'll do you nae harm.'

Brown, who had by this time received his change, put a shilling into her hand, bade his hostess farewell, and, taking the route which the farmer had gone before, walked briskly on, with the advantage of being guided by the fresh hoof-prints of his horse. Meg Merrilies looked after him for some time, and then muttered to herself, 'I maun see that lad again; and I maun gang back to Ellangowan too. The Laird's dead! aweel, death pays a' scores; he was a kind man ance. The Sheriff's flitted, and I can keep canny

in the bush; so there's no muckle hazard o' scouring the cramp-ring. I would like to see bonny Ellangowan again or I die.'

Brown meanwhile proceeded northward at a round pace along the moorish tract called the Waste of Cumberland. He passed a solitary house, towards which the horseman who preceded him had apparently turned up, for his horse's tread was evident in that direction. A little farther, he seemed to have returned again into the road. Mr. Dinmont had probably made a visit there either of business or pleasure. 'I wish,' thought Brown, 'the good farmer had staid till I came up; I should not have been sorry to ask him a few questions about the road, which seems to grow wilder and wilder.'

In truth, nature, as if she had designed this tract of country to be the barrier between two hostile nations, has stamped upon it a character of wildness and desolation. The hills are neither high nor rocky, but the land is all heath and morass; the huts poor and mean, and at a great distance from each other. Immediately around them there is generally some little attempt at cultivation; but a half-bred foal or two, straggling about with shackles on their hind legs, to save the trouble of inclosures, intimate the farmer's chief resource to be the breeding of horses. The people, too, are of a ruder and more inhospitable class than are elsewhere to be found in Cumberland, arising partly from their own habits, partly from their intermixture with vagrants and criminals, who make this wild country a refuge from justice. So much were the men of these districts in early times the objects of suspicion and dislike to their more polished neighbours, that there was, and perhaps still exists, a by-law of the corporation of Newcastle prohibiting any freeman of that city to take for apprentice a native of certain of these dales. It is pithily said, 'Give a dog an ill name and hang him'; and it may be added, if you give a man, or race of men, an ill name they are very likely to do something that deserves hanging. Of this Brown had heard something, and suspected more, from the discourse between the landlady, Dinmont, and the gipsy; but he was naturally of a fearless disposition, had nothing about him that could tempt the spoiler, and trusted to get through the Waste

with daylight. In this last particular, however, he was likely to be disappointed. The way proved longer than he had anticipated, and the horizon began to grow gloomy just as he entered upon an extensive morass.

Choosing his steps with care and deliberation, the young officer proceeded along a path that sometimes sunk between two broken black banks of moss earth, sometimes crossed narrow but deep ravines filled with a consistence between mud and water, and sometimes along heaps of gravel and stones, which had been swept together when some torrent or waterspout from the neighbouring hills overflowed the marshy ground below. He began to ponder how a horseman could make his way through such broken ground; the traces of hoofs, however, were still visible; he even thought he heard their sound at some distance, and, convinced that Mr. Dinmont's progress through the morass must be still slower than his own, he resolved to push on, in hopes to overtake him and have the benefit of his knowledge of the country. At this moment his little terrier sprung forward, barking most furiously.

Brown quickened his pace, and, attaining the summit of a small rising ground, saw the subject of the dog's alarm. In a hollow about a gunshot below him a man whom he easily recognised to be Dinmont was engaged with two others in a desperate struggle. He was dismounted, and defending himself as he best could with the butt of his heavy whip. Our traveller hastened on to his assistance; but ere he could get up a stroke had levelled the farmer with the earth, and one of the robbers, improving his victory, struck him some merciless blows on the head. The other villain, hastening to meet Brown, called to his companion to come along, 'for that one's CONTENT,' meaning, probably, past resistance or complaint. One ruffian was armed with a cutlass, the other with a bludgeon; but as the road was pretty narrow, 'bar fire-arms,' thought Brown, 'and I may manage them well enough.' They met accordingly, with the most murderous threats on the part of the ruffians. They soon found, however, that their new opponent was equally

stout and resolute; and, after exchanging two or three blows, one of them told him to 'follow his nose over the heath, in the devil's name, for they had nothing to say to him.'

Brown rejected this composition as leaving to their mercy the unfortunate man whom they were about to pillage, if not to murder outright; and the skirmish had just recommenced when Dinmont unexpectedly recovered his senses, his feet, and his weapon, and hastened to the scene of action. As he had been no easy antagonist, even when surprised and alone, the villains did not choose to wait his joining forces with a man who had singly proved a match for them both, but fled across the bog as fast as their feet could carry them, pursued by Wasp, who had acted gloriously during the skirmish, annoying the heels of the enemy, and repeatedly effecting a moment's diversion in his master's favour.

'Deil, but your dog's weel entered wi' the vermin now, sir!' were the first words uttered by the jolly farmer as he came up, his head streaming with blood, and recognised his deliverer and his little attendant.

'I hope, sir, you are not hurt dangerously?'

'O, deil a bit, my head can stand a gay clour; nae thanks to them, though, and mony to you. But now, hinney, ye maun help me to catch the beast, and ye maun get on behind me, for we maun off like whittrets before the whole clanjamfray be doun upon us; the rest o' them will no be far off.' The galloway was, by good fortune, easily caught, and Brown made some apology for overloading the animal.

'Deil a fear, man,' answered the proprietor; 'Dumple could carry six folk, if his back was lang eneugh; but God's sake, haste ye, get on, for I see some folk coming through the slack yonder that it may be just as weel no to wait for.'

Brown was of opinion that this apparition of five or six men, with whom the other villains seemed to join company, coming across the moss towards them, should abridge ceremony; he therefore mounted Dumple en croupe, and the little spirited nag cantered away with two men of great size and strength as if they had been children of six years

old. The rider, to whom the paths of these wilds seemed intimately known, pushed on at a rapid pace, managing with much dexterity to choose the safest route, in which he was aided by the sagacity of the galloway, who never failed to take the difficult passes exactly at the particular spot, and in the special manner, by which they could be most safely crossed. Yet, even with these advantages, the road was so broken, and they were so often thrown out of the direct course by various impediments, that they did not gain much on their pursuers. 'Never mind,' said the undaunted Scotchman to his companion, 'if we were ance by Withershins' Latch, the road's no near sae soft, and we'll show them fair play for't.'

They soon came to the place he named, a narrow channel, through which soaked, rather than flowed, a small stagnant stream, mantled over with bright green mosses. Dinmont directed his steed towards a pass where the water appeared to flow with more freedom over a harder bottom; but Dumple backed from the proposed crossing-place, put his head down as if to reconnoitre the swamp more nearly, stretching forward his fore-feet, and stood as fast as if he had been cut out of stone.

'Had we not better,' said Brown, 'dismount, and leave him to his fate; or can you not urge him through the swamp?'

'Na, na,' said his pilot, 'we maun cross Dumple at no rate, he has mair sense than mony a Christian.' So saying, he relaxed the reins, and shook them loosely. 'Come now, lad, take your ain way o't, let's see where ye'll take us through.'

Dumple, left to the freedom of his own will, trotted briskly to another part of the latch, less promising, as Brown thought, in appearance, but which the animal's sagacity or experience recommended as the safer of the two, and where, plunging in, he attained the other side with little difficulty.

'I'm glad we're out o' that moss,' said Dinmont, 'where there's mair stables for horses than change-houses for men; we have the Maiden-way to help us now, at ony rate.' Accordingly, they speedily gained a sort of rugged causeway so called, being the

remains of an old Roman road which traverses these wild regions in a due northerly direction. Here they got on at the rate of nine or ten miles an hour, Dumple seeking no other respite than what arose from changing his pace from canter to trot. ‘I could gar him show mair action,’ said his master, ‘but we are twa lang-legged chields after a’, and it would be a pity to stress Dumple; there wasna the like o’ him at Staneshiebank Fair the day.’

Brown readily assented to the propriety of sparing the horse, and added that, as they were now far out of the reach of the rogues, he thought Mr. Dintnont had better tie a handkerchief round his head, for fear of the cold frosty air aggravating the wound.

‘What would I do that for?’ answered the hardy farmer; ‘the best way’s to let the blood barken upon the cut; that saves plasters, hinney.’

Brown, who in his military profession had seen a great many hard blows pass, could not help remarking, ‘he had never known such severe strokes received with so much apparent indifference.’

‘Hout tout, man! I would never be making a humdudgeon about a scart on the pow; but we’ll be in Scotland in five minutes now, and ye maun gang up to Charlie’s Hope wi’ me, that’s a clear case.’

Brown readily accepted the offered hospitality. Night was now falling when they came in sight of a pretty river winding its way through a pastoral country. The hills were greener and more abrupt than those which Brown had lately passed, sinking their grassy sides at once upon the river. They had no pretensions to magnificence of height, or to romantic shapes, nor did their smooth swelling slopes exhibit either rocks or woods. Yet the view was wild, solitary, and pleasingly rural. No inclosures, no roads, almost no tillage; it seemed a land which a patriarch would have chosen to feed his flocks and herds. The remains of here and there a dismantled and ruined tower showed that it had once harboured beings of a very different description from its present

Zaid H. adwan

inhabitants; those freebooters, namely, to whose exploits the wars between England and Scotland bear witness.

Descending by a path towards a well-known ford, Dumple crossed the small river, and then, quickening his pace, trotted about a mile briskly up its banks, and approached two or three low thatched houses, placed with their angles to each other, with a great contempt of regularity. This was the farm-steading of Charlie's Hope, or, in the language of the country, 'the town.' A most furious barking was set up at their approach by the whole three generations of Mustard and Pepper, and a number of allies, names unknown. The farmer [Footnote: See Note 3.] made his well-known voice lustily heard to restore order; the door opened, and a half-dressed ewe-milker, who had done that good office, shut it in their faces, in order that she might run 'ben the house' to cry 'Mistress, mistress, it's the master, and another man wi' him.' Dumple, turned loose, walked to his own stable-door, and there pawed and whinnied for admission, in strains which were answered by his acquaintances from the interior. Amid this bustle Brown was fain to secure Wasp from the other dogs, who, with ardour corresponding more to their own names than to the hospitable temper of their owner, were much disposed to use the intruder roughly.

In about a minute a stout labourer was patting Dumple, and introducing him into the stable, while Mrs. Dinmont, a well-favoured buxom dame, welcomed her husband with unfeigned rapture. 'Eh, sirs! gudeman, ye hae been a weary while away!'

Zaid M. Adwan

CHAPTER XXIV

Liddell till now, except in Doric lays,
Tuned to her murmurs by her love-sick swains,
Unknown in song, though not a purer stream
Rolls towards the western main

Art of Preserving Health.

The present store-farmers of the south of Scotland are a much more refined race than their fathers, and the manners I am now to describe have either altogether disappeared or are greatly modified. Without losing the rural simplicity of manners, they now cultivate arts unknown to the former generation, not only in the progressive improvement of their possessions but in all the comforts of life. Their houses are more commodious, their habits of life regulated so as better to keep pace with those of the civilised world, and the best of luxuries, the luxury of knowledge, has gained much ground among their hills during the last thirty years. Deep drinking, formerly their greatest failing, is now fast losing ground; and, while the frankness of their extensive hospitality continues the same, it is, generally speaking, refined in its character and restrained in its excesses.

'Deil's in the wife,' said Dandie Dinmont, shaking off his spouse's embrace, but gently and with a look of great affection; 'deil's in ye, Ailie; d'ye no see the stranger gentleman?'

Ailie turned to make her apology--'Troth, I was sae weel pleased to see the gudeman, that--but, gude gracious! what's the matter wi' ye baith?' for they were now in her little parlour, and the candle showed the streaks of blood which Dinmont's wounded head had plentifully imparted to the clothes of his companion as well as to his own. 'Ye've been fighting again, Dandie, wi' some o' the Bewcastle horse-coupers! Wow, man, a married man, wi' a bonny family like yours, should ken better what a father's life's worth in the warld'; the tears stood in the good woman's eyes as she spoke.

‘Whisht! whisht! gudewife,’ said her husband, with a smack that had much more affection than ceremony in it; ‘never mind, never mind; there’s a gentleman that will tell you that, just when I had ga’en up to Lourie Lowther’s, and had bidden the drinking of twa cheerers, and gotten just in again upon the moss, and was whigging cannily awa hame, twa landloupers jumpit out of a peat-hag on me or I was thinking, and got me down, and knevelled me sair aneuch, or I could gar my whip walk about their lugs; and troth, gudewife, if this honest gentleman hadna come up, I would have gotten mair licks than I like, and lost mair siller than I could weel spare; so ye maun be thankful to him for it, under God.’ With that he drew from his side-pocket a large greasy leather pocket-book, and bade the gudewife lock it up in her kist.

‘God bless the gentleman, and e’en God bless him wi’ a’ my heart; but what can we do for him, but to gie him the meat and quarters we wadna refuse to the poorest body on earth--unless (her eye directed to the pocketbook, but with a feeling of natural propriety which made the inference the most delicate possible), unless there was ony other way--’ Brown saw, and estimated at its due rate, the mixture of simplicity and grateful generosity which took the downright way of expressing itself, yet qualified with so much delicacy; he was aware his own appearance, plain at best, and now torn and spattered with blood, made him an object of pity at least, and perhaps of charity. He hastened to say his name was Brown, a captain in the----regiment of cavalry, travelling for pleasure, and on foot, both from motives of independence and economy; and he begged his kind landlady would look at her husband’s wounds, the state of which he had refused to permit him to examine. Mrs. Dinmont was used to her husband’s broken heads more than to the presence of a captain of dragoons. She therefore glanced at a table-cloth not quite clean, and conned over her proposed supper a minute or two, before, patting her husband on the shoulder, she bade him sit down for ‘a hard-headed loon, that was aye bringing himsell and other folk into collie-shangies.’

When Dandie Dinmont, after executing two or three caprioles, and cutting the Highland fling, by way of ridicule of his wife's anxiety, at last deigned to sit down and commit his round, black, shaggy bullet of a head to her inspection, Brown thought he had seen the regimental surgeon look grave upon a more trifling case. The gudewife, however, showed some knowledge of chirurgery; she cut away with her scissors the gory locks whose stiffened and coagulated clusters interfered with her operations, and clapped on the wound some lint besmeared with a vulnerary salve, esteemed sovereign by the whole dale (which afforded upon fair nights considerable experience of such cases); she then fixed her plaster with a bandage, and, spite of her patient's resistance, pulled over all a night-cap, to keep everything in its right place. Some contusions on the brow and shoulders she fomented with brandy, which the patient did not permit till the medicine had paid a heavy toll to his mouth. Mrs. Dinmont then simply, but kindly, offered her assistance to Brown.

He assured her he had no occasion for anything but the accommodation of a basin and towel.

'And that's what I should have thought of sooner,' she said; 'and I did think o't, but I durst na open the door, for there's a' the bairns, poor things, sae keen to see their father.'

This explained a great drumming and whining at the door of the little parlour, which had somewhat surprised Brown, though his kind landlady had only noticed it by fastening the bolt as soon as she heard it begin. But on her opening the door to seek the basin and towel (for she never thought of showing the guest to a separate room), a whole tide of white-headed urchins streamed in, some from the stable, where they had been seeing Dumple, and giving him a welcome home with part of their four-hours scones; others from the kitchen, where they had been listening to old Elspeth's tales and ballads; and the youngest, half-naked, out of bed, all roaring to see daddy, and to inquire what he had brought home for them from the various fairs he had visited in his peregrinations.

Our knight of the broken head first kissed and hugged them all round, then distributed whistles, penny-trumpets, and gingerbread, and, lastly, when the tumult of their joy and welcome got beyond bearing, exclaimed to his guest--'This is a' the gude-wife's fault, Captain; she will gie the bairns a' their ain way.'

'Me! Lord help me,' said Ailie, who at that instant entered with the basin and ewer, 'how can I help it? I have naething else to gie them, poor things!'

Dinmont then exerted himself, and, between coaxing, threats, and shoving, cleared the room of all the intruders excepting a boy and girl, the two eldest of the family, who could, as he observed, behave themselves 'distinctly.' For the same reason, but with less ceremony, all the dogs were kicked out excepting the venerable patriarchs, old Pepper and Mustard, whom frequent castigation and the advance of years had inspired with such a share of passive hospitality that, after mutual explanation and remonstrance in the shape of some growling, they admitted Wasp, who had hitherto judged it safe to keep beneath his master's chair, to a share of a dried-wedder's skin, which, with the wool uppermost and unshorn, served all the purposes of a Bristol hearth-rug.

The active bustle of the mistress (so she was called in the kitchen, and the gudewife in the parlour) had already signed the fate of a couple of fowls, which, for want of time to dress them otherwise, soon appeared reeking from the gridiron, or brander, as Mrs. Dinmont denominated it. A huge piece of cold beef-ham, eggs, butter, cakes, and barley-meal bannocks in plenty made up the entertainment, which was to be diluted with home-brewed ale of excellent quality and a case-bottle of brandy. Few soldiers would find fault with such cheer after a day's hard exercise and a skirmish to boot; accordingly Brown did great honour to the eatables. While the gudewife partly aided, partly instructed, a great stout servant girl, with cheeks as red as her top-knot, to remove the supper matters and supply sugar and hot water (which, in the damsel's anxiety to gaze upon an actual live captain, she was in some danger of forgetting), Brown took an

opportunity to ask his host whether he did not repent of having neglected the gipsy's hint.

'Wha kens?' answered he; 'they're queer deevils; maybe I might just have 'scaped ae gang to meet the other. And yet I 'll no say that neither; for if that randy wife was coming to Charlie's Hope, she should have a pint bottle o' brandy and a pound o' tobacco to wear her through the winter. They're queer deevils; as my auld father used to say, they're warst where they're warst guided. After a', there's baith gude and ill about the gipsies.'

This, and some other desultory conversation, served as a 'shoeing-horn' to draw on another cup of ale and another 'cheerer,' as Dinmont termed it in his country phrase, of brandy and water. Brown then resolutely declined all further conviviality for that evening, pleading his own weariness and the effects of the skirmish, being well aware that it would have availed nothing to have remonstrated with his host on the danger that excess might have occasioned to his own raw wound and bloody coxcomb. A very small bed-room, but a very clean bed, received the traveller, and the sheets made good the courteous vaunt of the hostess, 'that they would be as pleasant as he could find ony gate, for they were washed wi' the fairy-well water, and bleached on the bonny white gowans, and bittled by Nelly and herself, and what could woman, if she was a queen, do mair for them?'

They indeed rivalled snow in whiteness, and had, besides, a pleasant fragrance from the manner in which they had been bleached. Little Wasp, after licking his master's hand to ask leave, couched himself on the coverlet at his feet; and the traveller's senses were soon lost in grateful oblivion.

zaid n. adwan

CHAPTER XXV

Give ye, Britons, then,
Your sportive fury, pitiless to pour
Loose on the nightly robber of the fold.
Him from his craggy winding haunts unearth'd,
Let all the thunder of the chase pursue.

THOMSON'S Seasons.

Brown rose early in the morning and walked out to look at the establishment of his new friend. All was rough and neglected in the neighbourhood of the house;--a paltry garden, no pains taken to make the vicinity dry or comfortable, and a total absence of all those little neatnesses which give the eye so much pleasure in looking at an English farm-house. There were, notwithstanding, evident signs that this arose only from want of taste or ignorance, not from poverty or the negligence which attends it. On the contrary, a noble cow-house, well filled with good milk-cows, a feeding-house, with ten bullocks of the most approved breed, a stable, with two good teams of horses, the appearance of domestics active, industrious, and apparently contented with their lot; in a word, an air of liberal though sluttish plenty indicated the wealthy fanner. The situation of the house above the river formed a gentle declivity, which relieved the inhabitants of the nuisances that might otherwise have stagnated around it. At a little distance was the whole band of children playing and building houses with peats around a huge doddered oak-tree, which was called Charlie's Bush, from some tradition respecting an old freebooter who had once inhabited the spot. Between the farm-house and the hill-pasture was a deep morass, termed in that country a slack; it had once been the defence of a fortalice, of which no vestiges now remained, but which was said to

have been inhabited by the same doughty hero we have now alluded to. Brown endeavoured to make some acquaintance with the children, but 'the rogues fled from him like quicksilver,' though the two eldest stood peeping when they had got to some distance. The traveller then turned his course towards the hill, crossing the foresaid swamp by a range of stepping-stones, neither the broadest nor steadiest that could be imagined. He had not climbed far up the hill when he met a man descending.

He soon recognised his worthy host, though a 'maud,' as it is called, or a grey shepherd's plaid, supplied his travelling jockey-coat, and a cap, faced with wild-cat's fur, more comrhodiously covered his bandaged head than a hat would have done. As he appeared through the morning mist, Brown, accustomed to judge of men by their thewes and sinews, could not help admiring his height, the breadth of his shoulders, and the steady firmness of his step. Dinmont internally paid the same compliment to Brown, whose athletic form he now perused somewhat more at leisure than he had done formerly. After the usual greetings of the morning, the guest inquired whether his host found any inconvenient consequences from the last night's affray.

'I had maist forgotten't,' said the hardy Borderer; 'but I think this morning, now that I am fresh and sober, if you and I were at the Withershins' Latch, wi' ilka ane a gude oak souple in his hand, we wadna turn back, no for half a dizzen o' yon scaff-raff.'

'But are you prudent, my good sir,' said Brown, 'not to take an hour or two's repose after receiving such severe contusions?'

'Confusions!' replied the farmer, laughing in derision. 'Lord, Captain, naething confuses my head. I ance jumped up and laid the dogs on the fox after I had tumbled from the tap o' Christenbury Craig, and that might have confused me to purpose. Na, naething confuses me, unless it be a screed o' drink at an orra time. Besides, I behooved to be round the hirsel this morning and see how the herds were coming on; they're apt to be negligent wi' their footballs, and fairs, and trysts, when ane's away. And there I met wi' Tarn o' Todshaw, and a wheen o' the rest o' the billies on the water side; they're

a' for a fox-hunt this morning,--ye'll gang? I 'll gie ye Dumple, and take the brood mare mysell.'

'But I fear I must leave you this morning, Mr. Dinmont,' replied Brown.

'The fient a bit o' that,' exclaimed the Borderer. 'I'll no part wi' ye at ony rate for a fortnight mair. Na, na; we dinna meet sic friends as you on a Bewcastle moss every night.'

Brown had not designed his journey should be a speedy one; he therefore readily compounded with this hearty invitation by agreeing to pass a week at Charlie's Hope.

On their return to the house, where the goodwife presided over an ample breakfast, she heard news of the proposed fox-hunt, not indeed with approbation, but without alarm or surprise. 'Dand! ye're the auld man yet; naething will make ye take warning till ye're brought hame some day wi' your feet foremost.'

'Tut, lass!' answered Dandle, 'ye ken yoursell I am never a prin the waur o' my rambles.'

So saying, he exhorted Brown to be hasty in despatching his breakfast, as, 'the frost having given way, the scent would lie this morning primely.'

Out they sallied accordingly for Otterscope Scaurs, the farmer leading the way. They soon quitted the little valley, and involved themselves among hills as steep as they could be without being precipitous. The sides often presented gullies, down which, in the winter season, or after heavy rain, the torrents descended with great fury. Some dappled mists still floated along the peaks of the hills, the remains of the morning clouds, for the frost had broken up with a smart shower. Through these fleecy screens were seen a hundred little temporary streamlets, or rills, descending the sides of the mountains like silver threads. By small sheep-tracks along these steeps, over which Dinmont trotted with the most fearless confidence, they at length drew near the scene of sport, and began to see other men, both on horse and foot, making toward the place of rendezvous. Brown was puzzling himself to conceive how a fox-chase could take place among hills, where

it was barely possible for a pony, accustomed to the ground, to trot along, but where, quitting the track for half a yard's breadth, the rider might be either bogged or precipitated down the bank. This wonder was not diminished when he came to the place of action.

They had gradually ascended very high, and now found themselves on a mountain-ridge, overhanging a glen of great depth, but extremely narrow. Here the sportsmen had collected, with an apparatus which would have shocked a member of the Pychely Hunt; for, the object being the removal of a noxious and destructive animal, as well as the pleasures of the chase, poor Reynard was allowed much less fair play than when pursued in form through an open country. The strength of his habitation, however, and the nature of the ground by which it was surrounded on all sides, supplied what was wanting in the courtesy of his pursuers. The sides of the glen were broken banks of earth and rocks of rotten stone, which sunk sheer down to the little winding stream below, affording here and there a tuft of scathed brushwood or a patch of furze. Along the edges of this ravine, which, as we have said, was very narrow, but of profound depth, the hunters on horse and foot ranged themselves; almost every farmer had with him at least a brace of large and fierce greyhounds, of the race of those deer-dogs which were formerly used in that country, but greatly lessened in size from being crossed with the common breed. The huntsman, a sort of provincial officer of the district, who receives a certain supply of meal, and a reward for every fox he destroys, was already at the bottom of the dell, whose echoes thundered to the chiding of two or three brace of foxhounds. Terriers, including the whole generation of Pepper and Mustard, were also in attendance, having been sent forward under the care of a shepherd. Mongrel, whelp, and cur of low degree filled up the burden of the chorus. The spectators on the brink of the ravine, or glen, held their greyhounds in leash in readiness to slip them at the fox as soon as the activity of the party below should force him to abandon his cover.

The scene, though uncouth to the eye of a professed sportsman, had something in it wildly captivating. The shifting figures on the mountain-ridge, having the sky for their background, appeared to move in the air. The dogs, impatient of their restraint, and maddened with the baying beneath, sprung here and there, and strained at the slips, which prevented them from joining their companions. Looking down, the view was equally striking. The thin mists were not totally dispersed in the glen, so that it was often through their gauzy medium that the eye strove to discover the motions of the hunters below. Sometimes a breath of wind made the scene visible, the blue rill glittering as it twined itself through its rude and solitary dell. They then could see the shepherds springing with fearless activity from one dangerous point to another, and cheering the dogs on the scent, the whole so diminished by depth and distance that they looked like pigmies. Again the mists close over them, and the only signs of their continued exertions are the halloos of the men and the clamours of the hounds, ascending as it were out of the bowels of the earth. When the fox, thus persecuted from one stronghold to another, was at length obl'ged to abandon his valley, and to break away for a more distant retreat, those who watched his motions from the top slipped their greyhounds, which, excelling the fox in swiftness, and equalling him in ferocity and spirit, soon brought the plunderer to his life's end.

In this way, without any attention to the ordinary rules and decorums of sport, but apparently as much to the gratification both of bipeds and quadrupeds as if all due ritual had been followed, four foxes were killed on this active morning; and even Brown himself, though he had seen the princely sports of India, and ridden a-tiger-hunting upon an elephant with the Nabob of Arcot, professed to have received an excellent morning's amusement. When the sport was given up for the day, most of the sportsmen, according to the established hospitality of the country, went to dine at Charlie's Hope.

During their return homeward Brown rode for a short time beside the huntsman, and asked him some questions concerning the mode in which he exercised his profession.

The man showed an unwillingness to meet his eye, and a disposition to be rid of his company and conversation, for which Brown could not easily account. He was a thin, dark, active fellow, well framed for the hardy profession which he exercised. But his face had not the frankness of the jolly hunter; he was down-looked, embarrassed, and avoided the eyes of those who looked hard at him. After some unimportant observations on the success of the day, Brown gave him a trifling gratuity, and rode on with his landlord. They found the goodwife prepared for their reception; the fold and the poultry-yard furnished the entertainment, and the kind and hearty welcome made amends for all deficiencies in elegance and fashion.

CHAPTER XXVI

The Elliots and Armstrongs did convene,
They were a gallant company!

Ballad of Johnnie Armstrong

Without noticing the occupations of an intervening day or two, which, as they consisted of the ordinary silvan amusements of shooting and coursing, have nothing sufficiently interesting to detain the reader, we pass to one in some degree peculiar to Scotland, which may be called a sort of salmon-hunting. This chase, in which the fish is pursued and struck with barbed spears, or a sort of long-shafted trident, called a waster, is much practised at the mouth of the Esk and in the other salmon rivers of Scotland. The sport is followed by day and night, but most commonly in the latter, when

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the fish are discovered by means of torches, or fire-grates, filled with blazing fragments of tar-barrels, which shed a strong though partial light upon the water. On the present occasion the principal party were embarked in a crazy boat upon a part of the river which was enlarged and deepened by the restraint of a mill-wear, while others, like the ancient Bacchanals in their gambols, ran along the banks, brandishing their torches and spears, and pursuing the salmon, some of which endeavoured to escape up the stream, while others, shrouding themselves under roots of trees, fragments of stones, and large rocks, attempted to conceal themselves from the researches of the fishermen. These the party in the boat detected by the slightest indications; the twinkling of a fin, the rising of an airbell, was sufficient to point out to these adroit sportsmen in what direction to use their weapon.

The scene was inexpressibly animating to those accustomed to it; but, as Brown was not practised to use the spear, he soon tired of making efforts which were attended with no other consequences than jarring his arms against the rocks at the bottom of the river, upon which, instead of the devoted salmon, he often bestowed his blow. Nor did he relish, though he concealed feelings which would not have been understood, being quite so near the agonies of the expiring salmon, as they lay flapping about in the boat, which they moistened with their blood. He therefore requested to be put ashore, and, from the top of a heugh or broken bank, enjoyed the scene much more to his satisfaction. Often he thought of his friend Dudley the artist, when he observed the effect produced by the strong red glare on the romantic banks under which the boat glided. Now the light diminished to a distant star that seemed to twinkle on the waters, like those which, according to the legends of the country, the water-kelpy sends for the purpose of indicating the watery grave of his victims. Then it advanced nearer, brightening and enlarging as it again approached, till the broad flickering flame rendered bank and rock and tree visible as it passed, tingeing them with its own red glare of dusky light, and resigning them gradually to darkness, or to pale moonlight, as it receded. By this light also were seen the figures in the boat, now holding high their weapons, now stooping

to strike, now standing upright, bronzed by the same red glare into a colour which might have befitted the regions of Pandemonium.

Having amused himself for some time with these effects of light and shadow, Brown strolled homewards towards the farm-house, gazing in his way at the persons engaged in the sport, two or three of whom are generally kept together, one holding the torch, the others with their spears, ready to avail themselves of the light it affords to strike their prey. As he observed one man struggling with a very weighty salmon which he had speared, but was unable completely to raise from the water, Brown advanced close to the bank to see the issue of his exertions. The man who held the torch in this instance was the huntsman, whose sulky demeanour Brown had already noticed with surprise. 'Come here, sir! come here, sir! look at this ane! He turns up a side like a sow.' Such was the cry from the assistants when some of them observed Brown advancing.

'Ground the waster weel, man! ground the waster weel! Haud him down! Ye haena the pith o' a cat!' were the cries of advice, encouragement, and expostulation from those who were on the bank to the sportsman engaged with the salmon, who stood up to his middle in water, jingling among broken ice, struggling against the force of the fish and the strength of the current, and dubious in what manner he should attempt to secure his booty. As Brown came to the edge of the bank, he called out--'Hold up your torch, friend huntsman!' for he had already distinguished his dusky features by the strong light cast upon them by the blaze. But the fellow no sooner heard his voice, and saw, or rather concluded, it was Brown who approached him, than, instead of advancing his light, he let it drop, as if accidentally, into the water.

'The deil's in Gabriel!' said the spearman, as the fragments of glowing wood floated half-blazing, half-sparkling, but soon extinguished, down the stream. 'The deil's in the man! I'll never master him without the light; and a braver kipper, could I but land him, never reisted abune a pair o' cleeks.'[Footnote: See Note 4] Some dashed into the water

to lend their assistance, and the fish, which was afterwards found to weigh nearly thirty pounds, was landed in safety.

The behaviour of the huntsman struck Brown, although he had no recollection of his face, nor could conceive why he should, as it appeared he evidently did, shun his observation. Could he be one of the footpads he had encountered a few days before? The supposition was not altogether improbable, although unwarranted by any observation he was able to make upon the man's figure and face. To be sure the villains wore their hats much slouched, and had loose coats, and their size was not in any way so peculiarly discriminated as to enable him to resort to that criterion. He resolved to speak to his host Dinmont on the subject, but for obvious reasons concluded it were best to defer the explanation until a cool hour in the morning.

The sportsmen returned loaded with fish, upwards of one hundred salmon having been killed within the range of their sport. The best were selected for the use of the principal farmers, the others divided among their shepherds, cottars, dependents, and others of inferior rank who attended. These fish, dried in the turf smoke of their cabins or shealings, formed a savoury addition to the mess of potatoes, mixed with onions, which was the principal part of their winter food. In the meanwhile a liberal distribution of ale and whisky was made among them, besides what was called a kettle of fish,--two or three salmon, namely, plunged into a cauldron and boiled for their supper. Brown accompanied his jolly landlord and the rest of his friends into the large and smoky kitchen, where this savoury mess reeked on an oaken table, massive enough to have dined Johnnie Armstrong and his merry-men. All was hearty cheer and huzza, and jest and clamorous laughter, and bragging alternately, and raillery between whiles. Our traveller looked earnestly around for the dark countenance of the fox-hunter; but it was nowhere to be seen.

At length he hazarded a question concerning him. ‘That was an awkward accident, my lads, of one of you, who dropped his torch in the water when his companion was struggling with the large fish.’

‘Awkward!’ returned a shepherd, looking up (the same stout young fellow who had speared the salmon); ‘he deserved his paiks for’t, to put out the light when the fish was on ane’s witters! I’m weel convinced Gabriel drapped the roughies in the water on purpose; he doesna like to see ony body do a thing better than himsell.’

‘Ay,’ said another, ‘he’s sair shamed o’ himsell, else he would have been up here the night; Gabriel likes a little o’ the gude thing as weel as ony o’ us.’

‘Is he of this country?’ said Brown.

‘Na, na, he’s been but shortly in office, but he’s a fell hunter; he’s frae down the country, some gate on the Dumfries side.’

‘And what’s his name, pray?’

‘Gabriel.’

‘But Gabriel what?’

‘Oh, Lord kens that; we dinna mind folk’s afternames muckle here, they run sae muckle into clans.’

‘Ye see, sir,’ said an old shepherd, rising, and speaking very slow, ‘the folks hereabout are a’ Armstrongs and Elliots,[Footnote: See Note 5] and sic like--two or three given names--and so, for distinction’s sake, the lairds and farmers have the names of their places that they live at; as, for example, Tam o’ Todshaw, Will o’ the Flat, Hobbie o’ Sorbietrees, and our good master here o’ the Charlie’s Hope. Aweel, sir, and then the inferior sort o’ people, ye’ll observe, are kend by sorts o’ by-names some o’ them, as Glaiket Christie, and the Deuke’s Davie, or maybe, like this lad Gabriel, by his employment; as, for example, Tod Gabbie, or Hunter Gabbie. He’s no been lang here, sir, and I dinna think ony body kens him by ony other name. But it’s no right to rin him

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doun ahint his back, for he's a fell fox-hunter, though he's maybe no just sae clever as some o' the folk hereawa wi' the waster.'

After some further desultory conversation, the superior sportsmen retired to conclude the evening after their own manner, leaving the others to enjoy themselves, unawed by their presence. That evening, like all those which Brown had passed at Charlie's Hope, was spent in much innocent mirth and conviviality. The latter might have approached to the verge of riot but for the good women; for several of the neighbouring mistresses (a phrase of a signification how different from what it bears in more fashionable life!) had assembled at Charlie's Hope to witness the event of this memorable evening. Finding the punch-bowl was so often replenished that there was some danger of their gracious presence being forgotten, they rushed in valorously upon the recreant revellers, headed by our good mistress Ailie, so that Venus speedily routed Bacchus. The fiddler and piper next made their appearance, and the best part of the night was gallantly consumed in dancing to their music.

An otter-hunt the next day, and a badger-baiting the day after, consumed the time merrily. I hope our traveller will not sink in the reader's estimation, sportsman though he may be, when I inform him that on this last occasion, after young Pepper had lost a fore-foot and Mustard the second had been nearly throttled, he begged, as a particular and personal favour of Mr. Dinmont, that the poor badger, who had made so gallant a defence, should be permitted to retire to his earth without farther molestation.

The farmer, who would probably have treated this request with supreme contempt had it come from any other person, was contented in Brown's case to express the utter extremity of his wonder. 'Weel,' he said, 'that's queer aneugh! But since ye take his part, deil a tyke shall meddle wi' him mair in my day. We 'll e'en mark him, and ca' him the Captain's brock; and I'm sure I'm glad I can do ony thing to oblige you,--but, Lord save us, to care about a brock!'

After a week spent in rural sport, and distinguished by the most frank attentions on the part of his honest landlord, Brown bade adieu to the banks of the Liddel and the hospitality of Charlie's Hope. The children, with all of whom he had now become an intimate and a favourite, roared manfully in full chorus at his departure, and he was obliged to promise twenty times that he would soon return and play over all their favourite tunes upon the flageolet till they had got them by heart. 'Come back again, Captain,' said one little sturdy fellow, 'and Jenny will be your wife.' Jenny was about eleven years old; she ran and hid herself behind her mammy.

'Captain, come back,' said a little fat roll-about girl of six, holding her mouth up to be kissed, 'and I'll be your wife my ainsell.'

'They must be of harder mould than I,' thought Brown, 'who could part from so many kind hearts with indifference.' The good dame too, with matron modesty, and an affectionate simplicity that marked the olden time, offered her cheek to the departing guest. 'It's little the like of us can do,' she said, 'little indeed; but yet, if there were but ony thing--'

'Now, my dear Mrs. Dinmont, you embolden me to make a request: would you but have the kindness to weave me, or work me, just such a grey plaid as the goodman wears?' He had learned the language and feelings of the country even during the short time of his residence, and was aware of the pleasure the request would confer.

'A tait o' woo' would be scarce amang us,' said the goodwife, brightening, 'if ye shouldna hae that, and as gude a tweel as ever cam aff a pirn. I'll speak to Johnnie Goodsire, the weaver at the Castletown, the morn. Fare ye weel, sir! and may ye be just as happy yoursell as ye like to see a' body else; and that would be a sair wish to some folk.'

I must not omit to mention that our traveller left his trusty attendant Wasp to be a guest at Charlie's Hope for a season. He foresaw that he might prove a troublesome attendant in the event of his being in any situation where secrecy and concealment might

be necessary. He was therefore consigned to the care of the eldest boy, who promised, in the words of the old song, that he should have

A bit of his supper, a bit of his bed,

and that he should be engaged in none of those perilous pastimes in which the race of Mustard and Pepper had suffered frequent mutilation. Brown now prepared for his journey, having taken a temporary farewell of his trusty little companion.

There is an odd prejudice in these hills in favour of riding. Every farmer rides well, and rides the whole day. Probably the extent of their large pasture farms, and the necessity of surveying them rapidly, first introduced this custom; or a very zealous antiquary might derive it from the times of the 'Lay of the Last Minstrel,' when twenty thousand horsemen assembled at the light of the beacon-fires. [Footnote: It would be affectation to alter this reference. But the reader will understand that it was inserted to keep up the author's incognito, as he was not likely to be suspected of quoting his own works. This explanation is also applicable to one or two similar passages, in this and the other novels, introduced for the same reason.] But the truth is undeniable; they like to be on horseback, and can be with difficulty convinced that any one chooses walking from other motives than those of convenience or necessity. Accordingly, Dinmont insisted upon mounting his guest and accompanying him on horseback as far as the nearest town in Dumfries-shire, where he had directed his baggage to be sent, and from which he proposed to pursue his intended journey towards Woodbourne, the residence of Julia Mannering.

Upon the way he questioned his companion concerning the character of the fox-hunter; but gained little information, as he had been called to that office while Dinmont was making the round of the Highland fairs. 'He was a shake-rag like fellow,' he said, 'and, he dared to say, had gipsy blood in his veins; but at ony rate he was nane o' the smaiks that had been on their quarters in the moss; he would ken them weel if he saw them again. There are some no bad folk amang the gipsies too, to be sic a gang,' added

Dandie; ‘if ever I see that auld randle-tree of a wife again, I ‘ll gie her something to buy tobacco. I have a great notion she meant me very fair after a’.’

When they were about finally to part, the good farmer held Brown long by the hand, and at length said, ‘Captain, the woo’s sae weel up the year that it’s paid a’ the rent, and we have naething to do wi’ the rest o’ the siller when Ailie has had her new gown, and the bairns their bits o’ duds. Now I was thinking of some safe hand to put it into, for it’s ower muckle to ware on brandy and sugar; now I have heard that you army gentlemen can sometimes buy yoursells up a step, and if a hundred or twa would help ye on such an occasion, the bit scrape o’ your pen would be as good to me as the siller, and ye might just take yer ain time o’ settling it; it wad be a great convenience to me.’ Brown, who felt the full delicacy that wished to disguise the conferring an obligation under the show of asking a favour, thanked his grateful friend most heartily, and assured him he would have recourse to his purse without scruple should circumstances ever render it convenient for him. And thus they parted with many expressions of mutual regard.

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CHAPTER XXVII

If thou hast any love of mercy in thee,
Turn me upon my face that I may die.

JOANNA BALLIE.

Our traveller hired a post-chaise at the place where he separated from Dinmont, with the purpose of proceeding to Kippletringan, there to inquire into the state of the family at Woodbourne, before he should venture to make his presence in the country known to Miss Mannering. The stage was a long one of eighteen or twenty miles, and the road lay across the country. To add to the inconveniences of the journey, the snow began to fall pretty quickly. The postilion, however, proceeded on his journey for a good many miles without expressing doubt or hesitation. It was not until the night was completely set in that he intimated his apprehensions whether he was in the right road. The increasing snow rendered this intimation rather alarming, for, as it drove full in the lad's face and lay whitening all around him, it served in two different ways to confuse his knowledge of the country, and to diminish the chance of his recovering the right track. Brown then himself got out and looked round, not, it may be well imagined, from any better hope than that of seeing some house at which he might make inquiry. But none appeared; he could therefore only tell the lad to drive steadily on. The road on which they were ran through plantations of considerable extent and depth, and the traveller therefore conjectured that there must be a gentleman's house at no great distance. At length, after struggling wearily on for about a mile, the post-boy stopped, and protested his horses would not budge a foot farther; 'but he saw,' he said, 'a light among the trees, which must proceed from a house; the only way was to inquire the road there.' Accordingly, he dismounted, heavily encumbered with a long great-coat and a pair of boots which might have rivalled in thickness the seven-fold shield of Ajax. As in this guise he was plodding forth upon his voyage of discovery, Brown's impatience prevailed, and, jumping out of the carriage, he desired the lad to stop where he was by the horses, and he would himself go to the house; a command which the driver most joyfully obeyed.

Our traveller groped along the side of the inclosure from which the light glimmered, in order to find some mode of approaching in that direction, and, after proceeding for some space, at length found a stile in the hedge, and a pathway leading into the

plantation, which in that place was of great extent. This promised to lead to the light which was the object of his search, and accordingly Brown proceeded in that direction, but soon totally lost sight of it among the trees. The path, which at first seemed broad and well marked by the opening of the wood through which it winded, was now less easily distinguishable, although the whiteness of the snow afforded some reflected light to assist his search. Directing himself as much as possible through the more open parts of the wood, he proceeded almost a mile without either recovering a view of the light or seeing anything resembling a habitation. Still, however, he thought it best to persevere in that direction. It must surely have been a light in the hut of a forester, for it shone too steadily to be the glimmer of an ignis fatuus. The ground at length became broken and declined rapidly, and, although Brown conceived he still moved along what had once at least been a pathway, it was now very unequal, and the snow concealing those breaches and inequalities, the traveller had one or two falls in consequence. He began now to think of turning back, especially as the falling snow, which his impatience had hitherto prevented his attending to, was coming on thicker and faster.

Willing, however, to make a last effort, he still advanced a little way, when to his great delight he beheld the light opposite at no great distance, and apparently upon a level with him. He quickly found that this last appearance was deception, for the ground continued so rapidly to sink as made it obvious there was a deep dell, or ravine of some kind, between him and the object of his search. Taking every precaution to preserve his footing, he continued to descend until he reached the bottom of a very steep and narrow glen, through which winded a small rivulet, whose course was then almost choked with snow. He now found himself embarrassed among the ruins of cottages, whose black gables, rendered more distinguishable by the contrast with the whitened surface from which they rose, were still standing; the side-walls had long since given way to time, and, piled in shapeless heaps and covered with snow, offered frequent and embarrassing obstacles to our traveller's progress. Still, however, he persevered, crossed the rivulet, not without some trouble, and at length, by exertions which became both painful and

perilous, ascended its opposite and very rugged bank, until he came on a level with the building from which the gleam proceeded.

It was difficult, especially by so imperfect a light, to discover the nature of this edifice; but it seemed a square building of small size, the upper part of which was totally ruinous. It had, perhaps, been the abode in former times of some lesser proprietor, or a place of strength and concealment, in case of need, for one of greater importance. But only the lower vault remained, the arch of which formed the roof in the present state of the building. Brown first approached the place from whence the light proceeded, which was a long narrow slit or loop-hole, such as usually are to be found in old castles. Impelled by curiosity to reconnoitre the interior of this strange place before he entered, Brown gazed in at this aperture. A scene of greater desolation could not well be imagined. There was a fire upon the floor, the smoke of which, after circling through the apartment, escaped by a hole broken in the arch above. The walls, seen by this smoky light, had the rude and waste appearance of a ruin of three centuries old at least. A cask or two, with some broken boxes and packages, lay about the place in confusion. But the inmates chiefly occupied Brown's attention. Upon a lair composed of straw, with a blanket stretched over it, lay a figure, so still that, except that it was not dressed in the ordinary habiliments of the grave, Brown would have concluded it to be a corpse. On a steadier view he perceived it was only on the point of becoming so, for he heard one or two of those low, deep, and hard-drawn sighs that precede dissolution when the frame is tenacious of life. A female figure, dressed in a long cloak, sate on a stone by this miserable couch; her elbows rested upon her knees, and her face, averted from the light of an iron lamp beside her, was bent upon that of the dying person. She moistened his mouth from time to time with some liquid, and between whiles sung, in a low monotonous cadence, one of those prayers, or rather spells, which, in some parts of Scotland and the north of England, are used by the vulgar and ignorant to speed the passage of a parting spirit, like the tolling of the bell in Catholic days. She accompanied

this dismal sound with a slow rocking motion of her body to and fro, as if to keep time with her song. The words ran nearly thus:--

Wasted, weary, wherefore stay,
Wrestling thus with earth and clay?
From the body pass away.
Hark! the mass is singing.

From thee doff thy mortal weed,
Mary Mother be thy speed,
Saints to help thee at thy need.
Hark! the knell is ringing.

Fear not snow-drift driving fast,
Sleet, or hail, or levin blast.
Soon the shroud shall lap thee fast,
And the sleep be on thee cast
That shall ne'er know waking.

Haste thee, haste thee, to be gone,
Earth flits fast, and time draws on.
Gasp thy gasp, and groan thy groan,
Day is near the breaking.

The songstress paused, and was answered by one or two deep and hollow groans, that seemed to proceed from the very agony of the mortal strife. 'It will not be,' she muttered to herself; 'he cannot pass away with that on his mind, it tethers him here--

Heaven cannot abide it,
Earth refuses to hide it.

[Footnote: See Note 6.]

I must open the door'; and, rising, she faced towards the door of the apartment, observing heedfully not to turn back her head, and, withdrawing a bolt or two (for, notwithstanding the miserable appearance of the place, the door was cautiously secured), she lifted the latch, saying,

Open lock, end strife, Come death, and pass life.

Brown, who had by this time moved from his post, stood before her as she opened the door. She stepped back a pace, and he entered, instantly recognising, but with no comfortable sensation, the same gipsy woman whom he had met in Bewcastle. She also

knew him at once, and her attitude, figure, and the anxiety of her countenance, assumed the appearance of the well-disposed ogress of a fairy tale, warning a stranger not to enter the dangerous castle of her husband. The first words she spoke (holding up her hands in a reproving manner) were, 'Said I not to ye, Make not, meddle not? Beware of the redding straik! [Footnote: The redding straik, namely, a blow received by a peacemaker who interferes betwixt two combatants, to red or separate them, is proverbially said to be the most dangerous blow a man can receive.] You are come to no house o' fair-strae death.' So saying, she raised the lamp and turned its light on the dying man, whose rude and harsh features were now convulsed with the last agony. A roll of linen about his head was stained with blood, which had soaked also through the blankets and the straw. It was, indeed, under no natural disease that the wretch was suffering. Brown started back from this horrible object, and, turning to the gipsy, exclaimed, 'Wretched woman, who has done this?'

'They that were permitted,' answered Meg Merrilies, while she scanned with a close and keen glance the features of the expiring man. 'He has had a sair struggle; but it's passing. I kenn'd he would pass when you came in. That was the death-ruckle; he's dead.'

Sounds were now heard at a distance, as of voices. 'They are coming,' said she to Brown; 'you are a dead man if ye had as mony lives as hairs.' Brown eagerly looked round for some weapon of defence. There was none near. He then rushed to the door with the intention of plunging among the trees, and making his escape by flight from what he now esteemed a den of murderers, but Merrilies held him with a masculine grasp. 'Here,' she said, 'here, be still and you are safe; stir not, whatever you see or hear, and nothing shall befall you.'

Brown, in these desperate circumstances, remembered this woman's intimation formerly, and thought he had no chance of safety but in obeying her. She caused him to couch down among a parcel of straw on the opposite side of the apartment from the

corpse, covered him carefully, and flung over him two or three old sacks which lay about the place. Anxious to observe what was to happen, Brown arranged as softly as he could the means of peeping from under the coverings by which he was hidden, and awaited with a throbbing heart the issue of this strange and most unpleasant adventure. The old gipsy in the meantime set about arranging the dead body, composing its limbs, and straighting the arms by its side. 'Best to do this,' she muttered, 'ere he stiffen.' She placed on the dead man's breast a trencher, with salt sprinkled upon it, set one candle at the head and another at the feet of the body, and lighted both. Then she resumed her song, and awaited the approach of those whose voices had been heard without.

Brown was a soldier, and a brave one; but he was also a man, and at this moment his fears mastered his courage so completely that the cold drops burst out from every pore. The idea of being dragged out of his miserable concealment by wretches whose trade was that of midnight murder, without weapons or the slightest means of defence, except entreaties, which would be only their sport, and cries for help, which could never reach other ear than their own; his safety entrusted to the precarious compassion of a being associated with these felons, and whose trade of rapine and imposture must have hardened her against every human feeling--the bitterness of his emotions almost choked him. He endeavoured to read in her withered and dark countenance, as the lamp threw its light upon her features, something that promised those feelings of compassion which females, even in their most degraded state, can seldom altogether smother. There was no such touch of humanity about this woman. The interest, whatever it was, that determined her in his favour arose not from the impulse of compassion, but from some internal, and probably capricious, association of feelings, to which he had no clue. It rested, perhaps, on a fancied likeness, such as Lady Macbeth found to her father in the sleeping monarch. Such were the reflections that passed in rapid succession through Brown's mind as he gazed from his hiding-place upon this extraordinary personage. Meantime the gang did not yet approach, and he was almost prompted to resume his original intention of attempting an escape from the hut, and cursed internally his own

irresolution, which had consented to his being cooped up where he had neither room for resistance nor flight.

Meg Merrilies seemed equally on the watch. She bent her ear to every sound that whistled round the old walls. Then she turned again to the dead body, and found something new to arrange or alter in its position. ‘He’s a bonny corpse,’ she muttered to herself, ‘and weel worth the streaking.’ And in this dismal occupation she appeared to feel a sort of professional pleasure, entering slowly into all the minutiae, as if with the skill and feelings of a connoisseur. A long, dark-coloured sea-cloak, which she dragged out of a corner, was disposed for a pall. The face she left bare, after closing the mouth and eyes, and arranged the capes of the cloak so as to hide the bloody bandages, and give the body, as she muttered, ‘a mair decent appearance.’

At once three or four men, equally ruffians in appearance and dress, rushed into the hut. ‘Meg, ye limb of Satan, how dare you leave the door open?’ was the first salutation of the party.

‘And wha ever heard of a door being barred when a man was in the dead-thraw? how d’ye think the spirit was to get awa through bolts and bars like thae?’

‘Is he dead, then?’ said one who went to the side of the couch to look at the body.

‘Ay, ay, dead enough,’ said another; ‘but here’s what shall give him a rousing lykewake.’ So saying, he fetched a keg of spirits from a corner, while Meg hastened to display pipes and tobacco. From the activity with which she undertook the task, Brown conceived good hope of her fidelity towards her guest. It was obvious that she wished to engage the ruffians in their debauch, to prevent the discovery which might take place if by accident any of them should approach too nearly the place of Brown’s concealment.

CHAPTER XXVIII

Nor board nor garner own we now,
Nor roof nor latched door,
Nor kind mate, bound, by holy vow,
To bless a good man's store
Noon lulls us in a gloomy den,
And night is grown our day;
Uprouse ye, then, my merry men!
And use it as ye may

JOANNA BAILLIE.

Brown could now reckon his foes: they were five in number; two of them were very powerful men, who appeared to be either real seamen or strollers who assumed that character; the other three, an old man and two lads, were slighter made, and, from their black hair and dark complexion, seemed to belong to Meg's tribe. They passed from one to another the cup out of which they drank their spirits. 'Here's to his good voyage!' said one of the seamen, drinking; 'a squally night he's got, however, to drift through the sky in.'

We omit here various execrations with which these honest gentlemen garnished their discourse, retaining only such of their expletives as are least offensive.

'A does not mind wind and weather; 'a has had many a north-easter in his day.'

'He had his last yesterday,' said another gruffly; 'and now old Meg may pray for his last fair wind, as she's often done before.'

'I'll pray for nane o' him,' said Meg, 'nor for you neither, you randy dog. The times are sair altered since I was a kinchen-mort. Men were men then, and fought other in the open field, and there was nae milling in the darkmans. And the gentry had kind hearts,

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and would have given baith lap and pannel to ony puir gipsy; and there was not one, from Johnnie Faa the upright man to little Christie that was in the panniers, would cloyed a dud from them. But ye are a' altered from the gude auld rules, and no wonder that you scour the cramp-ring and trine to the cheat sae often. Yes, ye are a' altered: you 'll eat the goodman's meat, drink his drink, sleep on the strammel in his barn, and break his house and cut his throat for his pains! There's blood on your hands, too, ye dogs, mair than ever came there by fair righting. See how ye'll die then. Lang it was ere he died; he strove, and strove sair, and could neither die nor live; but you--half the country will see how ye'll grace the woodie.'

The party set up a hoarse laugh at Meg's prophecy.

'What made you come back here, ye auld beldam?' said one of the gipsies; 'could ye not have staid where you were, and spaed fortunes to the Cumberland flats? Bing out and tour, ye auld devil, and see that nobody has scented; that's a' you're good for now.'

'Is that a' I am good for now?' said the indignant matron. 'I was good for mair than that in the great fight between our folk and Patrico Salmon's; if I had not helped you with these very fambles (holding up her hands), Jean Baillie would have frummagem'd you, ye feckless do-little!'

There was here another laugh at the expense of the hero who had received this amazon's assistance.

'Here, mother,' said one of the sailors, 'here's a cup of the right for you, and never mind that bully-huff.'

Meg drank the spirits, and, withdrawing herself from farther conversation, sat down before the spot where Brown lay hid, in such a posture that it would have been difficult for any one to have approached it without her rising. The men, however, showed no disposition to disturb her.

They closed around the fire and held deep consultation together; but the low tone in which they spoke, and the cant language which they used, prevented Brown from

understanding much of their conversation. He gathered in general that they expressed great indignation against some individual. ‘He shall have his gruel,’ said one, and then whispered something very low into the ear of his comrade.

‘I’ll have nothing to do with that,’ said the other.

‘Are you turned hen-hearted, Jack?’

‘No, by G-d, no more than yourself, but I won’t. It was something like that stopped all the trade fifteen or twenty years ago. You have heard of the Loup?’

‘I have heard HIM (indicating the corpse by a jerk of his head) tell about that job. G-d, how he used to laugh when he showed us how he fetched him off the perch!’

‘Well, but it did up the trade for one while,’ said Jack.

‘How should that be?’ asked the surly villain.

‘Why,’ replied Jack, ‘the people got rusty about it, and would not deal, and they had bought so many brooms that--’

‘Well, for all that,’ said the other, ‘I think we should be down upon the fellow one of these darkmans and let him get it well.’

‘But old Meg’s asleep now,’ said another; ‘she grows a driveller, and is afraid of her shadow. She’ll sing out, some of these odd-come-shortlies, if you don’t look sharp.’

‘Never fear,’ said the old gipsy man; ‘Meg’s true-bred; she’s the last in the gang that will start; but she has some queer ways, and often cuts queer words.’

With more of this gibberish they continued the conversation, rendering it thus, even to each other, a dark obscure dialect, eked out by significant nods and signs, but never expressing distinctly, or in plain language, the subject on which it turned. At length one of them, observing Meg was still fast asleep, or appeared to be so, desired one of the lads ‘to hand in the black Peter, that they might flick it open.’ The boy stepped to the door and brought in a portmanteau, which Brown instantly recognised for his own. His thoughts immediately turned to the unfortunate lad he had left with the carriage. Had

the ruffians murdered him? was the horrible doubt that crossed his mind. The agony of his attention grew yet keener, and while the villains pulled out and admired the different articles of his clothes and linen, he eagerly listened for some indication that might intimate the fate of the postilion. But the ruffians were too much delighted with their prize, and too much busied in examining its contents, to enter into any detail concerning the manner in which they had acquired it. The portmanteau contained various articles of apparel, a pair of pistols, a leathern case with a few papers, and some money, etc., etc. At any other time it would have provoked Brown excessively to see the unceremonious manner in which the thieves shared his property, and made themselves merry at the expense of the owner. But the moment was too perilous to admit any thoughts but what had immediate reference to self-preservation.

After a sufficient scrutiny into the portmanteau, and an equitable division of its contents, the ruffians applied themselves more closely to the serious occupation of drinking, in which they spent the greater part of the night. Brown was for some time in great hopes that they would drink so deep as to render themselves insensible, when his escape would have been an easy matter. But their dangerous trade required precautions inconsistent with such unlimited indulgence, and they stopped short on this side of absolute intoxication. Three of them at length composed themselves to rest, while the fourth watched. He was relieved in this duty by one of the others after a vigil of two hours. When the second watch had elapsed, the sentinel awakened the whole, who, to Brown's inexpressible relief, began to make some preparations as if for departure, bundling up the various articles which each had appropriated. Still, however, there remained something to be done. Two of them, after some rummaging which not a little alarmed Brown, produced a mattock and shovel; another took a pickaxe from behind the straw on which the dead body was extended. With these implements two of them left the hut, and the remaining three, two of whom were the seamen, very strong men, still remained in garrison.

After the space of about half an hour, one of those who had departed again returned, and whispered the others. They wrapped up the dead body in the sea cloak which had served as a pall, and went out, bearing it along with them. The aged sibyl then arose from her real or feigned slumbers. She first went to the door, as if for the purpose of watching the departure of her late inmates, then returned, and commanded Brown, in a low and stifled voice, to follow her instantly. He obeyed; but, on leaving the hut, he would willingly have repossessed himself of his money, or papers at least, but this she prohibited in the most peremptory manner. It immediately occurred to him that the suspicion of having removed anything of which he might repossess himself would fall upon this woman, by whom in all probability his life had been saved. He therefore immediately desisted from his attempt, contenting himself with seizing a cutlass, which one of the ruffians had flung aside among the straw. On his feet, and possessed of this weapon, he already found himself half delivered from the dangers which beset him. Still, however, he felt stiffened and cramped, both with the cold and by the constrained and unaltered position which he had occupied all night. But, as he followed the gipsy from the door of the hut, the fresh air of the morning and the action of walking restored circulation and activity to his benumbed limbs.

The pale light of a winter's morning was rendered more clear by the snow, which was lying all around, crisped by the influence of a severe frost. Brown cast a hasty glance at the landscape around him, that he might be able again to know the spot. The little tower, of which only a single vault remained, forming the dismal apartment in which he had spent this remarkable night, was perched on the very point of a projecting rock overhanging the rivulet. It was accessible only on one side, and that from the ravine or glen below. On the other three sides the bank was precipitous, so that Brown had on the preceding evening escaped more dangers than one; for, if he had attempted to go round the building, which was once his purpose, he must have been dashed to pieces. The dell was so narrow that the trees met in some places from the opposite sides. They were now loaded with snow instead of leaves, and thus formed a sort of frozen canopy over the

rivulet beneath, which was marked by its darker colour, as it soaked its way obscurely through wreaths of snow. In one place, where the glen was a little wider, leaving a small piece of flat ground between the rivulet and the bank, were situated the ruins of the hamlet in which Brown had been involved on the preceding evening. The ruined gables, the insides of which were japanned with turf-smoke, looked yet blacker contrasted with the patches of snow which had been driven against them by the wind, and with the drifts which lay around them.

Upon this wintry and dismal scene Brown could only at present cast a very hasty glance; for his guide, after pausing an instant as if to permit him to indulge his curiosity, strode hastily before him down the path which led into the glen. He observed, with some feelings of suspicion, that she chose a track already marked by several feet, which he could only suppose were those of the depredators who had spent the night in the vault. A moment's recollection, however, put his suspicions to rest. It was not to be thought that the woman, who might have delivered him up to her gang when in a state totally defenceless, would have suspended her supposed treachery until he was armed and in the open air, and had so many better chances of defence or escape. He therefore followed his guide in confidence and silence. They crossed the small brook at the same place where it previously had been passed by those who had gone before. The footmarks then proceeded through the ruined village, and from thence down the glen, which again narrowed to a ravine, after the small opening in which they were situated. But the gipsy no longer followed the same track; she turned aside, and led the way by a very rugged and uneven path up the bank which overhung the village. Although the snow in many places hid the pathway, and rendered the footing uncertain and unsafe, Meg proceeded with a firm and determined step, which indicated an intimate knowledge of the ground she traversed. At length they gained the top of the bank, though by a passage so steep and intricate that Brown, though convinced it was the same by which he had descended on the night before, was not a little surprised how he had accomplished the task without

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breaking his neck. Above, the country opened wide and uninclosed for about a mile or two on the one hand, and on the other were thick plantations of considerable extent.

Meg, however, still led the way along the bank of the ravine out of which they had ascended, until she heard beneath the murmur of voices. She then pointed to a deep plantation of trees at some distance. 'The road to Kippletringan,' she said, 'is on the other side of these inclosures. Make the speed ye can; there's mair rests on your life than other folk's. But you have lost all--stay.' She fumbled in an immense pocket, from which she produced a greasy purse--'Many's the awmous your house has gi'en Meg and hers; and she has lived to pay it back in a small degree;' and she placed the purse in his hand.

'The woman is insane,' thought Brown; but it was no time to debate the point, for the sounds he heard in the ravine below probably proceeded from the banditti. 'How shall I repay this money,' he said, 'or how acknowledge the kindness you have done me?'

'I hae twa boons to crave,' answered the sibyl, speaking low and hastily: 'one, that you will never speak of what you have seen this night; the other, that you will not leave this country till you see me again, and that you leave word at the Gordon Arms where you are to be heard of, and when I next call for you, be it in church or market, at wedding or at burial, Sunday or Saturday, mealtime or fasting, that ye leave everything else and come with me.'

'Why, that will do you little good, mother.'

'But 'twill do yoursell muckle, and that's what I'm thinking o'. I am not mad, although I have had eneugh to make me sae; I am not mad, nor doating, nor drunken. I know what I am asking, and I know it has been the will of God to preserve you in strange dangers, and that I shall be the instrument to set you in your father's seat again. Sae give me your promise, and mind that you owe your life to me this blessed night.'

'There's wildness in her manner, certainly,' thought Brown, 'and yet it is more like the wildness of energy than of madness.'--'Well, mother, since you do ask so useless

and trifling a favour, you have my promise. It will at least give me an opportunity to repay your money with additions. You are an uncommon kind of creditor, no doubt, but--'

'Away, away, then!' said she, waving her hand. 'Think not about the goud, it's a' your ain; but remember your promise, and do not dare to follow me or look after me.' So saying, she plunged again into the dell, and descended it with great agility, the icicles and snow-wreaths showering down after her as she disappeared.

Notwithstanding her prohibition, Brown endeavoured to gain some point of the bank from which he might, unseen, gaze down into the glen; and with some difficulty (for it must be conceived that the utmost caution was necessary) he succeeded. The spot which he attained for this purpose was the point of a projecting rock, which rose precipitously from among the trees. By kneeling down among the snow and stretching his head cautiously forward, he could observe what was going on in the bottom of the dell. He saw, as he expected, his companions of the last night, now joined by two or three others. They had cleared away the snow from the foot of the rock and dug a deep pit, which was designed to serve the purpose of a grave. Around this they now stood, and lowered into it something wrapped in a naval cloak, which Brown instantly concluded to be the dead body of the man he had seen expire. They then stood silent for half a minute, as if under some touch of feeling for the loss of their companion. But if they experienced such, they did not long remain under its influence, for all hands went presently to work to fill up the grave; and Brown, perceiving that the task would be soon ended, thought it best to take the gipsy woman's hint and walk as fast as possible until he should gain the shelter of the plantation.

Having arrived under cover of the trees, his first thought was of the gipsy's purse. He had accepted it without hesitation, though with something like a feeling of degradation, arising from the character of the person by whom he was thus accommodated. But it relieved him from a serious though temporary embarrassment. His money, excepting a

very few shillings, was in his portmanteau, and that was in possession of Meg's friends. Some time was necessary to write to his agent, or even to apply to his good host at Charlie's Hope, who would gladly have supplied him. In the meantime he resolved to avail himself of Meg's subsidy, confident he should have a speedy opportunity of replacing it with a handsome gratuity. 'It can be but a trifling sum,' he said to himself, 'and I daresay the good lady may have a share of my banknotes to make amends.'

With these reflections he opened the leathern purse, expecting to find at most three or four guineas. But how much was he surprised to discover that it contained, besides a considerable quantity of gold pieces, of different coinages and various countries, the joint amount of which could not be short of a hundred pounds, several valuable rings and ornaments set with jewels, and, as appeared from the slight inspection he had time to give them, of very considerable value.

Brown was equally astonished and embarrassed by the circumstances in which he found himself, possessed, as he now appeared to be, of property to a much greater amount than his own, but which had been obtained in all probability by the same nefarious means through which he had himself been plundered. His first thought was to inquire after the nearest justice of peace, and to place in his hands the treasure of which he had thus unexpectedly become the depositary, telling at the same time his own remarkable story. But a moment's consideration brought several objections to this mode of procedure In the first place, by observing this course he should break his promise of silence, and might probably by that means involve the safety, perhaps the life, of this woman, who had risked her own to preserve his, and who had voluntarily endowed him with this treasure--a generosity which might thus become the means of her ruin. This was not to be thought of. Besides, he was a stranger, and for a time at least unprovided with means of establishing his own character and credit to the satisfaction of a stupid or obstinate country magistrate. 'I will think over the matter more maturely,' he said; 'perhaps there may be a regiment quartered at the county town, in which case my

knowledge of the service and acquaintance with many officers of the army cannot fail to establish my situation and character by evidence which a civil judge could not sufficiently estimate. And then I shall have the commanding officer's assistance in managing matters so as to screen this unhappy madwoman, whose mistake or prejudice has been so fortunate for me. A civil magistrate might think himself obliged to send out warrants for her at once, and the consequence, in case of her being taken, is pretty evident. No, she has been upon honour with me if she were the devil, and I will be equally upon honour with her. She shall have the privilege of a court-martial, where the point of honour can qualify strict law. Besides, I may see her at this place, Kipple--Couple--what did she call it? and then I can make restitution to her, and e'en let the law claim its own when it can secure her. In the meanwhile, however, I cut rather an awkward figure for one who has the honour to bear his Majesty's commission, being little better than the receiver of stolen goods.'

With these reflections, Brown took from the gipsy's treasure three or four guineas, for the purpose of his immediate expenses, and, tying up the rest in the purse which contained them, resolved not again to open it until he could either restore it to her by whom it was given, or put it into the hands of some public functionary. He next thought of the cutlass, and his first impulse was to leave it in the plantation. But, when he considered the risk of meeting with these ruffians, he could not resolve on parting with his arms. His walking-dress, though plain, had so much of a military character as suited not amiss with his having such a weapon. Besides, though the custom of wearing swords by persons out of uniform had been gradually becoming antiquated, it was not yet so totally forgotten as to occasion any particular remark towards those who chose to adhere to it. Retaining, therefore, his weapon of defence, and placing the purse of the gipsy in a private pocket, our traveller strode gallantly on through the wood in search of the promised highroad.

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CHAPTER XXIX

All school day's friendship childhood innocence'
We Hermia like two artificial gods
Have with our needles created both one flower,
Both on one sampler sitting on one cushion,
Both warbling of one song both in one key
As if our hands our sides, voices and minds
Had been incorporate

A Midsummer Night's Dream

JULIA MANNERING TO MATILDA MARCHMONT

'How can you upbraid me, my dearest Matilda, with abatement in friendship or fluctuation in affection? Is it possible for me to forget that you are the chosen of my heart, in whose faithful bosom I have deposited every feeling which your poor Julia dares to acknowledge to herself? And you do me equal injustice in upbraiding me with exchanging your friendship for that of Lucy Bertram. I assure you she has not the materials I must seek for in a bosom confidante. She is a charming girl, to be sure, and I like her very much, and I confess our forenoon and evening engagements have left me less time for the exercise of my pen than our proposed regularity of correspondence demands. But she is totally devoid of elegant accomplishments, excepting the knowledge of French and Italian, which she acquired from the most grotesque monster you ever beheld, whom my father has engaged as a kind of librarian, and whom he

patronises, I believe, to show his defiance of the world's opinion. Colonel Mannering seems to have formed a determination that nothing shall be considered as ridiculous so long as it appertains to or is connected with him. I remember in India he had picked up somewhere a little mongrel cur, with bandy legs, a long back, and huge flapping ears. Of this uncouth creature he chose to make a favourite, in despite of all taste and opinion; and I remember one instance which he alleged, of what he called Brown's petulance, was, that he had criticised severely the crooked legs and drooping ears of Bingo. On my word, Matilda, I believe he nurses his high opinion of this most awkward of all pedants upon a similar principle. He seats the creature at table, where he pronounces a grace that sounds like the scream of the man in the square that used to cry mackerel, flings his meat down his throat by shovelfuls, like a dustman loading his cart, and apparently without the most distant perception of what he is swallowing, then bleats forth another unnatural set of tones by way of returning thanks, stalks out of the room, and immerses himself among a parcel of huge worm-eaten folios that are as uncouth as himself! I could endure the creature well enough had I anybody to laugh at him along with me; but Lucy Bertram, if I but verge on the border of a jest affecting this same Mr. Sampson (such is the horrid man's horrid name), looks so piteous that it deprives me of all spirit to proceed, and my father knits his brow, flashes fire from his eye, bites his lip, and says something that is extremely rude and uncomfortable to my feelings.

'It was not of this creature, however, that I meant to speak to you, only that, being a good scholar in the modern as well as the ancient languages, he has contrived to make Lucy Bertram mistress of the former, and she has only, I believe, to thank her own good sense, or obstinacy, that the Greek, Latin (and Hebrew, for aught I know), were not added to her acquisitions. And thus she really has a great fund of information, and I assure you I am daily surprised at the power which she seems to possess of amusing herself by recalling and arranging the subjects of her former reading. We read together every morning, and I begin to like Italian much better than when we were teased by that

conceited animal Cicipici. This is the way to spell his name, and not Chichipichi; you see I grow a connoisseur.

‘But perhaps I like Miss Bertram more for the accomplishments she wants than for the knowledge she possesses. She knows nothing of music whatever, and no more of dancing than is here common to the meanest peasants, who, by the way, dance with great zeal and spirit. So that I am instructor in my turn, and she takes with great gratitude lessons from me upon the harpsichord; and I have even taught her some of La Pique’s steps, and you know he thought me a promising scholar.

‘In the evening papa often reads, and I assure you he is the best reader of poetry you ever heard; not like that actor who made a kind of jumble between reading and acting,--staring, and bending his brow, and twisting his face, and gesticulating as if he were on the stage and dressed out in all his costume. My father’s manner is quite different; it is the reading of a gentleman, who produces effect by feeling, taste, and inflection of voice, not by action or mummery. Lucy Bertram rides remarkably well, and I can now accompany her on horseback, having become emboldened by example. We walk also a good deal in spite of the cold. So, upon the whole, I have not quite so much time for writing as I used to have.

‘Besides, my love, I must really use the apology of all stupid correspondents, that I have nothing to say. My hopes, my fears, my anxieties about Brown are of a less interesting cast since I know that he is at liberty and in health. Besides, I must own I think that by this time the gentleman might have given me some intimation what he was doing. Our intercourse may be an imprudent one, but it is not very complimentary to me that Mr. Vanbeest Brown should be the first to discover that such is the case, and to break off in consequence. I can promise him that we might not differ much in opinion should that happen to be his, for I have sometimes thought I have behaved extremely foolishly in that matter. Yet I have so good an opinion of poor Brown, that I cannot but think there is something extraordinary in his silence.

‘To return to Lucy Bertram. No, my dearest Matilda, she can never, never rival you in my regard, so that all your affectionate jealousy on that account is without foundation. She is, to be sure, a very pretty, a very sensible, a very affectionate girl, and I think there are few persons to whose consolatory friendship I could have recourse more freely in what are called the real evils of life. But then these so seldom come in one’s way, and one wants a friend who will sympathise with distresses of sentiment as well as with actual misfortune. Heaven knows, and you know, my dearest Matilda, that these diseases of the heart require the balm of sympathy and affection as much as the evils of a more obvious and determinate character. Now Lucy Bertram has nothing of this kindly sympathy, nothing at all, my dearest Matilda. Were I sick of a fever, she would sit up night after night to nurse me with the most unrepining patience; but with the fever of the heart, which my Matilda has soothed so often, she has no more sympathy than her old tutor. And yet what provokes me is, that the demure monkey actually has a lover of her own, and that their mutual affection (for mutual I take it to be) has a great deal of complicated and romantic interest. She was once, you must know, a great heiress, but was ruined by the prodigality of her father and the villainy of a horrid man in whom he confided. And one of the handsomest young gentlemen in the country is attached to her; but, as he is heir to a great estate, she discourages his addresses on account of the disproportion of their fortune.

‘But with all this moderation, and self-denial, and modesty, and so forth, Lucy is a sly girl. I am sure she loves young Hazlewood, and I am sure he has some guess of that, and would probably bring her to acknowledge it too if my father or she would allow him an opportunity. But you must know the Colonel is always himself in the way to pay Miss Bertram those attentions which afford the best indirect opportunities for a young gentleman in Hazlewood’s situation. I would have my good papa take care that he does not himself pay the usual penalty of meddling folks. I assure you, if I were Hazlewood I should look on his compliments, his bowings, his cloakings, his shawlings, and his handings with some little suspicion; and truly I think Hazlewood does so too at some

odd times. Then imagine what a silly figure your poor Julia makes on such occasions! Here is my father making the agreeable to my friend; there is young Hazlewood watching every word of her lips, and every motion of her eye; and I have not the poor satisfaction of interesting a human being, not even the exotic monster of a parson, for even he sits with his mouth open, and his huge round goggling eyes fixed like those of a statue, admiring Mess Baartram!

'All this makes me sometimes a little nervous, and sometimes a little mischievous. I was so provoked at my father and the lovers the other day for turning me completely out of their thoughts and society, that I began an attack upon Hazlewood, from which it was impossible for him, in common civility, to escape. He insensibly became warm in his defence,--I assure you, Matilda, he is a very clever as well as a very handsome young man, and I don't think I ever remember having seen him to the same advantage,--when, behold, in the midst of our lively conversation, a very soft sigh from Miss Lucy reached my not ungratified ears. I was greatly too generous to prosecute my victory any farther, even if I had not been afraid of papa. Luckily for me, he had at that moment got into a long description of the peculiar notions and manners of a certain tribe of Indians who live far up the country, and was illustrating them by making drawings on Miss Bertram's work-patterns, three of which he utterly damaged by introducing among the intricacies of the pattern his specimens of Oriental costume. But I believe she thought as little of her own gown at the moment as of the Indian turbands and cummerbands. However, it was quite as well for me that he did not see all the merit of my little manoeuvre, for he is as sharp-sighted as a hawk, and a sworn enemy to the slightest shade of coquetry.

'Well, Matilda, Hazlewood heard this same half-audible sigh, and instantly repented his temporary attentions to such an unworthy object as your Julia, and, with a very comical expression of consciousness, drew near to Lucy's work-table. He made some trifling observation, and her reply was one in which nothing but an ear as acute as that

of a lover, or a curious observer like myself, could have distinguished anything more cold and dry than usual. But it conveyed reproof to the self-accusing hero, and he stood abashed accordingly. You will admit that I was called upon in generosity to act as mediator. So I mingled in the conversation, in the quiet tone of an unobserving and uninterested third party, led them into their former habits of easy chat, and, after having served awhile as the channel of communication through which they chose to address each other, set them down to a pensive game at chess, and very dutifully went to tease papa, who was still busied with his drawings. The chess-players, you must observe, were placed near the chimney, beside a little work-table, which held the board and men, the Colonel at some distance, with lights upon a library table; for it is a large old-fashioned room, with several recesses, and hung with grim tapestry, representing what it might have puzzled the artist himself to explain.

‘“Is chess a very interesting game, papa?”

‘“I am told so,” without honouring me with much of his notice.

‘“I should think so, from the attention Mr. Hazlewood and Lucy are bestowing on it.”

‘He raised his head hastily and held his pencil suspended for an instant. Apparently he saw nothing that excited his suspicions, for he was resuming the folds of a Mahratta’s turban in tranquillity when I interrupted him with--“How old is Miss Bertram, sir?”

‘“How should I know, Miss? About your own age, I suppose.”

‘“Older, I should think, sir. You are always telling me how much more decorously she goes through all the honours of the tea-table. Lord, papa, what if you should give her a right to preside once and for ever!”

‘“Julia, my dear,” returned papa, “you are either a fool outright or you are more disposed to make mischief than I have yet believed you.”

‘“Oh, my dear sir! put your best construction upon it; I would not be thought a fool for all the world.”

‘“Then why do you talk like one?” said my father.

‘“Lord, sir, I am sure there is nothing so foolish in what I said just now. Everybody knows you are a very handsome man” (a smile was just visible), “that is, for your time of life” (the dawn was overcast), “which is far from being advanced, and I am sure I don’t know why you should not please yourself, if you have a mind. I am sensible I am but a thoughtless girl, and if a graver companion could render you more happy--”

‘There was a mixture of displeasure and grave affection in the manner in which my father took my hand, that was a severe reproof to me for trifling with his feelings. “Julia,” he said, “I bear with much of your petulance because I think I have in some degree deserved it, by neglecting to superintend your education sufficiently closely. Yet I would not have you give it the rein upon a subject so delicate. If you do not respect the feelings of your surviving parent towards the memory of her whom you have lost, attend at least to the sacred claims of misfortune; and observe, that the slightest hint of such a jest reaching Miss Bertram’s ears would at once induce her to renounce her present asylum, and go forth, without a protector, into a world she has already felt so unfriendly.”

‘What could I say to this, Matilda? I only cried heartily, begged pardon, and promised to be a good girl in future. And so here am I neutralised again, for I cannot, in honour or common good-nature, tease poor Lucy by interfering with Hazlewood, although she has so little confidence in me; and neither can I, after this grave appeal, venture again upon such delicate ground with papa. So I burn little rolls of paper, and sketch Turks’ heads upon visiting cards with the blackened end--I assure you I succeeded in making a superb Hyder-Ally last night--and I jingle on my unfortunate harpsichord, and begin at the end of a grave book and read it backward. After all, I begin to be very much vexed about Brown’s silence. Had he been obliged to leave the country, I am sure he would at least have written to me. Is it possible that my father can have intercepted his letters? But no, that is contrary to all his principles; I don’t think he would open a letter addressed to me to-night, to prevent my jumping out of window to-morrow. What an

expression I have suffered to escape my pen! I should be ashamed of it, even to you, Matilda, and used in jest. But I need not take much merit for acting as I ought to do. This same Mr. Vanbeest Brown is by no means so very ardent a lover as to hurry the object of his attachment into such inconsiderate steps. He gives one full time to reflect, that must be admitted. However, I will not blame him unheard, nor permit myself to doubt the manly firmness of a character which I have so often extolled to you. Were he capable of doubt, of fear, of the shadow of change, I should have little to regret.

'And why, you will say, when I expect such steady and unalterable constancy from a lover, why should I be anxious about what Hazlewood does, or to whom he offers his attentions? I ask myself the question a hundred times a day, and it only receives the very silly answer that one does not like to be neglected, though one would not encourage a serious infidelity.

'I write all these trifles because you say that they amuse you, and yet I wonder how they should. I remember, in our stolen voyages to the world of fiction, you always admired the grand and the romantic,--tales of knights, dwarfs, giants, and distressed damsels, oothsayers, visions, beckoning ghosts, and bloody hands; whereas I was partial to the involved intrigues of private life, or at farthest to so much only of the supernatural as is conferred by the agency of an Eastern genie or a beneficent fairy. YOU would have loved to shape your course of life over the broad ocean, with its dead calms and howling tempests, its tornadoes, and its billows mountain-high; whereas I should like to trim my little pinnace to a brisk breeze in some inland lake or tranquil bay, where there was just difficulty of navigation sufficient to give interest and to require skill without any sensible degree of danger. So that, upon the whole, Matilda, I think you should have had my father, with his pride of arms and of ancestry, his chivalrous point of honour, his high talents, and his abstruse and mystic studies. You should have had Lucy Bertram too for your friend, whose fathers, with names which alike defy memory and orthography, ruled over this romantic country, and whose birth

took place, as I have been indistinctly informed, under circumstances of deep and peculiar interest. You should have had, too, our Scottish residence, surrounded by mountains, and our lonely walks to haunted ruins. And I should have had, in exchange, the lawns and shrubs, and green-houses and conservatories, of Pine Park, with your good, quiet, indulgent aunt, her chapel in the morning, her nap after dinner, her hand at whist in the evening, not forgetting her fat coach-horses and fatter coachman. Take notice, however, that Brown is not included in this proposed barter of mine; his good-humour, lively conversation, and open gallantry suit my plan of life as well as his athletic form, handsome features, and high spirit would accord with a character of chivalry. So, as we cannot change altogether out and out, I think we must e'en abide as we are.'

END OF VOLUME I

zaid n. adwan

GUY MANNERING

BY SIR WALTER SCOTT

VOLUME II

zaid n. adwan

GUY MANNERING

OR

THE ASTROLOGER

CHAPTER I

I renounce your defiance; if you parley so roughly I'll
barricade my gates against you. Do you see yon bay window?
Storm, I care not, serving the good Duke of Norfolk
Merry Devil of Edmonton.

JULIA MANNERING to MATILDA MARCHMONT

'I rise from a sick-bed, my dearest Matilda, to communicate the strange and frightful scenes which have just passed. Alas! how little we ought to jest with futurity! I closed my letter to you in high spirits, with some flippant remarks on your taste for the romantic and extraordinary in fictitious narrative. How little I expected to have had such events to record in the course of a few days! And to witness scenes of terror, or to contemplate them in description, is as different, my dearest Matilda, as to bend over the

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brink of a precipice holding by the frail tenure of a half-rooted shrub, or to admire the same precipice as represented in the landscape of Salvator. But I will not anticipate my narrative.

'The first part of my story is frightful enough, though it had nothing to interest my feelings. You must know that this country is particularly favourable to the commerce of a set of desperate men from the Isle of Man, which is nearly opposite. These smugglers are numerous, resolute, and formidable, and have at different times become the dread of the neighbourhood when any one has interfered with their contraband trade. The local magistrates, from timidity or worse motives, have become shy of acting against them, and impunity has rendered them equally daring and desperate. With all this my father, a stranger in the land, and invested with no official authority, had, one would think, nothing to do. But it must be owned that, as he himself expresses it, he was born when Mars was lord of his ascendant, and that strife and bloodshed find him out in circumstances and situations the most retired and pacific.

'About eleven o'clock on last Tuesday morning, while Hazlewood and my father were proposing to walk to a little lake about three miles' distance, for the purpose of shooting wild ducks, and while Lucy and I were busied with arranging our plan of work and study for the day, we were alarmed by the sound of horses' feet advancing very fast up the avenue. The ground was hardened by a severe frost, which made the clatter of the hoofs sound yet louder and sharper. In a moment two or three men, armed, mounted, and each leading a spare horse loaded with packages, appeared on the lawn, and, without keeping upon the road, which makes a small sweep, pushed right across for the door of the house. Their appearance was in the utmost degree hurried and disordered, and they frequently looked back like men who apprehended a close and deadly pursuit. My father and Hazlewood hurried to the front door to demand who they were, and what was their business. They were revenue officers, they stated, who had seized these horses, loaded with contraband articles, at a place about three miles off. But the

smugglers had been reinforced, and were now pursuing them with the avowed purpose of recovering the goods, and putting to death the officers who had presumed to do their duty. The men said that, their horses being loaded, and the pursuers gaining ground upon them, they had fled to Woodbourne, conceiving that, as my father had served the King, he would not refuse to protect the servants of government when threatened to be murdered in the discharge of their duty.

'My father, to whom, in his enthusiastic feelings of military loyalty, even a dog would be of importance if he came in the King's name, gave prompt orders for securing the goods in the hall, arming the servants, and defending the house in case it should be necessary. Hazlewood seconded him with great spirit, and even the strange animal they call Sampson stalked out of his den, and seized upon a fowling-piece which my father had laid aside to take what they call a rifle-gun, with which they shoot tigers, etc., in the East. The piece went off in the awkward hands of the poor parson, and very nearly shot one of the excisemen. At this unexpected and involuntary explosion of his weapon, the Dominie (such is his nickname) exclaimed, "Prodigious!" which is his usual ejaculation when astonished. But no power could force the man to part with his discharged piece, so they were content to let him retain it, with the precaution of trusting him with no ammunition. This (excepting the alarm occasioned by the report) escaped my notice at the time, you may easily believe; but, in talking over the scene afterwards, Hazlewood made us very merry with the Dominie's ignorant but zealous valour.

'When my father had got everything into proper order for defence, and his people stationed at the windows with their firearms, he wanted to order us out of danger--into the cellar, I believe--but we could not be prevailed upon to stir. Though terrified to death, I have so much of his own spirit that I would look upon the peril which threatens us rather than hear it rage around me without knowing its nature or its progress. Lucy, looking as pale as a marble statue, and keeping her eyes fixed on Hazlewood, seemed not even to hear the prayers with which he conjured her to leave the front of the house.

But in truth, unless the hall-door should be forced, we were in little danger; the windows being almost blocked up with cushions and pillows, and, what the Dominie most lamented, with folio volumes, brought hastily from the library, leaving only spaces through which the defenders might fire upon the assailants.

'My father had now made his dispositions, and we sat in breathless expectation in the darkened apartment, the men remaining all silent upon their posts, in anxious contemplation probably of the approaching danger. My father, who was quite at home in such a scene, walked from one to another and reiterated his orders that no one should presume to fire until he gave the word. Hazlewood, who seemed to catch courage from his eye, acted as his aid-de-camp, and displayed the utmost alertness in bearing his directions from one place to another, and seeing them properly carried into execution. Our force, with the strangers included, might amount to about twelve men.

'At length the silence of this awful period of expectation was broken by a sound which at a distance was like the rushing of a stream of water, but as it approached we distinguished the thick-beating clang of a number of horses advancing very fast. I had arranged a loophole for myself, from which I could see the approach of the enemy. The noise increased and came nearer, and at length thirty horsemen and more rushed at once upon the lawn. You never saw such horrid wretches! Notwithstanding the severity of the season, they were most of them stripped to their shirts and trowsers, with silk handkerchiefs knotted about their heads, and all well armed with carbines, pistols, and cutlasses. I, who am a soldier's daughter, and accustomed to see war from my infancy, was never so terrified in my life as by the savage appearance of these ruffians, their horses reeking with the speed at which they had ridden, and their furious exclamations of rage and disappointment when they saw themselves baulked of their prey. They paused, however, when they saw the preparations made to receive them, and appeared to hold a moment's consultation among themselves. At length one of the party, his face blackened with gunpowder by way of disguise, came forward with a white handkerchief

on the end of his carbine, and asked to speak with Colonel Mannering. My father, to my infinite terror, threw open a window near which he was posted, and demanded what he wanted. “We want our goods, which we have been robbed of by these sharks,” said the fellow; “and our lieutenant bids me say that, if they are delivered, we’ll go off for this bout without clearing scores with the rascals who took them; but if not, we’ll burn the house, and have the heart’s blood of every one in it,"--a threat which he repeated more than once, graced by a fresh variety of imprecations, and the most horrid denunciations that cruelty could suggest.

‘“And which is your lieutenant?” said my father in reply.

‘“That gentleman on the grey horse,” said the miscreant, “with the red handkerchief bound about his brow.”

‘“Then be pleased to tell that gentleman that, if he and the scoundrels who are with him do not ride off the lawn this instant, I will fire upon them without ceremony.” So saying, my father shut the window and broke short the conference.

‘The fellow no sooner regained his troop than, with a loud hurra, or rather a savage yell, they fired a volley against our garrison. The glass of the windows was shattered in every direction, but the precautions already noticed saved the party within from suffering. Three such volleys were fired without a shot being returned from within. My father then observed them getting hatchets and crows, probably to assail the hall-door, and called aloud, “Let none fire but Hazlewood and me; Hazlewood, mark the ambassador.” He himself aimed at the man on the grey horse, who fell on receiving his shot. Hazlewood was equally successful. He shot the spokesman, who had dismounted and was advancing with an axe in his hand. Their fall discouraged the rest, who began to turn round their horses; and a few shots fired at them soon sent them off, bearing along with them their slain or wounded companions. We could not observe that they suffered any farther loss. Shortly after their retreat a party of soldiers made their appearance, to my infinite relief. These men were quartered at a village some miles

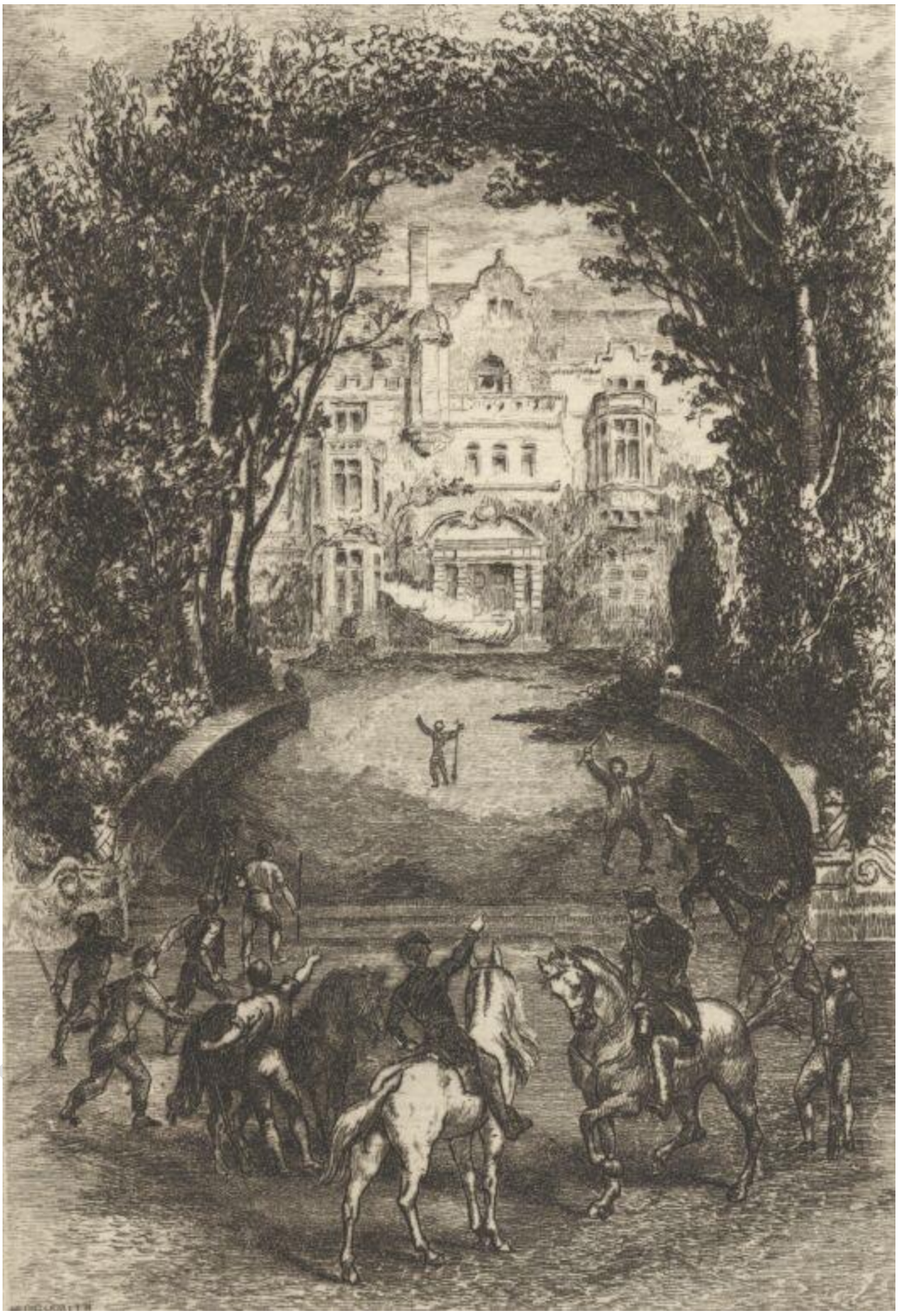
distant, and had marched on the first rumour of the skirmish. A part of them escorted the terrified revenue officers and their seizure to a neighbouring seaport as a place of safety, and at my earnest request two or three files remained with us for that and the following day, for the security of the house from the vengeance of these banditti.

'Such, dearest Matilda, was my first alarm. I must not forget to add that the ruffians left, at a cottage on the roadside, the man whose face was blackened with powder, apparently because he was unable to bear transportation. He died in about half an hour after. On examining the corpse, it proved to be that of a profligate boor in the neighbourhood, a person notorious as a poacher and smuggler. We received many messages of congratulation from the neighbouring families, and it was generally allowed that a few such instances of spirited resistance would greatly check the presumption of these lawless men. My father distributed rewards among his servants, and praised Hazlewood's courage and coolness to the skies. Lucy and I came in for a share of his applause, because we had stood fire with firmness, and had not disturbed him with screams or expostulations. As for the Dominie, my father took an opportunity of begging to exchange snuff-boxes with him. The honest gentleman was much flattered with the proposal, and extolled the beauty of his new snuff-box excessively. "It looked," he said, "as well as if it were real gold from Ophir." Indeed, it would be odd if it should not, being formed in fact of that very metal; but, to do this honest creature justice, I believe the knowledge of its real value would not enhance his sense of my father's kindness, supposing it, as he does, to be pinchbeck gilded. He has had a hard task replacing the folios which were used in the barricade, smoothing out the creases and dog's-ears, and repairing the other disasters they have sustained during their service in the fortification. He brought us some pieces of lead and bullets which these ponderous tomes had intercepted during the action, and which he had extracted with great care; and, were I in spirits, I could give you a comic account of his astonishment at the apathy with which we heard of the wounds and mutilation suffered by Thomas Aquinas or the venerable Chrysostom. But I am not in spirits, and I have yet another and a more

interesting incident to communicate. I feel, however, so much fatigued with my present exertion that I cannot resume the pen till to-morrow. I will detain this letter notwithstanding, that you may not feel any anxiety upon account of your own

'JULIA MANNERING.'

zaid n. adwan



CHAPTER II

Here's a good world!
Knew you of this fair work?

King John.

JULIA MANNERING to MATILDA MARCHMONT

'I must take up the thread of my story, my dearest Matilda, where I broke off yesterday.

'For two or three days we talked of nothing but our siege and its probable consequences, and dinned into my father's unwilling ears a proposal to go to Edinburgh, or at least to Dumfries, where there is remarkably good society, until the resentment of these outlaws should blow over. He answered with great composure that he had no mind to have his landlord's house and his own property at Woodbourne destroyed; that, with our good leave, he had usually been esteemed competent to taking measures for the safety or protection of his family; that, if he remained quiet at home, he conceived the welcome the villains had received was not of a nature to invite a second visit, but should he show any signs of alarm, it would be the sure way to incur the very risk which we were afraid of. Heartened by his arguments, and by the extreme indifference with which he treated the supposed danger, we began to grow a little bolder, and to walk about as usual. Only the gentlemen were sometimes invited to take their guns when they attended us, and I observed that my father for several nights paid particular attention to having

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the house properly secured, and required his domestics to keep their arms in readiness in case of necessity.

‘But three days ago chanced an occurrence of a nature which alarmed me more by far than the attack of the smugglers.

‘I told you there was a small lake at some distance from Woodbourne, where the gentlemen sometimes go to shoot wild-fowl. I happened at breakfast to say I should like to see this place in its present frozen state, occupied by skaters and curlers, as they call those who play a particular sort of game upon the ice. There is snow on the ground, but frozen so hard that I thought Lucy and I might venture to that distance, as the footpath leading there was well beaten by the repair of those who frequented it for pastime. Hazlewood instantly offered to attend us, and we stipulated that he should take his fowling-piece. He laughed a good deal at the idea of going a-shooting in the snow; but, to relieve our tremors, desired that a groom, who acts as gamekeeper occasionally, should follow us with his gun. As for Colonel Mannering, he does not like crowds or sights of any kind where human figures make up the show, unless indeed it were a military review, so he declined the party.

‘We set out unusually early, on a fine, frosty, exhilarating morning, and we felt our minds, as well as our nerves, braced by the elasticity of the pure air. Our walk to the lake was delightful, or at least the difficulties were only such as diverted us,--a slippery descent, for instance, or a frozen ditch to cross, which made Hazlewood’s assistance absolutely necessary. I don’t think Lucy liked her walk the less for these occasional embarrassments.

‘The scene upon the lake was beautiful. One side of it is bordered by a steep crag, from which hung a thousand enormous icicles all glittering in the sun; on the other side was a little wood, now exhibiting that fantastic appearance which the pine trees present when their branches are loaded with snow. On the frozen bosom of the lake itself were a multitude of moving figures, some flitting along with the velocity of swallows, some

sweeping in the most graceful circles, and others deeply interested in a less active pastime, crowding round the spot where the inhabitants of two rival parishes contended for the prize at curling,--an honour of no small importance, if we were to judge from the anxiety expressed both by the players and bystanders. We walked round the little lake, supported by Hazlewood, who lent us each an arm. He spoke, poor fellow, with great kindness to old and young, and seemed deservedly popular among the assembled crowd. At length we thought of retiring.

'Why do I mention these trivial occurrences? Not, Heaven knows, from the interest I can now attach to them; but because, like a drowning man who catches at a brittle twig, I seize every apology for delaying the subsequent and dreadful part of my narrative. But it must be communicated: I must have the sympathy of at least one friend under this heart-rending calamity.

'We were returning home by a footpath which led through a plantation of firs. Lucy had quitted Hazlewood's arm; it is only the plea of absolute necessity which reconciles her to accept his assistance. I still leaned upon his other arm. Lucy followed us close, and the servant was two or three paces behind us. Such was our position, when at once, and as if he had started out of the earth, Brown stood before us at a short turn of the road! He was very plainly, I might say coarsely, dressed, and his whole appearance had in it something wild and agitated. I screamed between surprise and terror. Hazlewood mistook the nature of my alarm, and, when Brown advanced towards me as if to speak, commanded him haughtily to stand back, and not to alarm the lady. Brown replied, with equal asperity, he had no occasion to take lessons from him how to behave to that or any other lady. I rather believe that Hazlewood, impressed with the idea that he belonged to the band of smugglers, and had some bad purpose in view, heard and understood him imperfectly. He snatched the gun from the servant, who had come up on a line with us, and, pointing the muzzle at Brown, commanded him to stand off at his peril. My screams, for my terror prevented my rinding articulate language, only

hastened the catastrophe. Brown, thus menaced, sprung upon Hazlewood, grappled with him, and had nearly succeeded in wrenching the fowling-piece from his grasp, when the gun went off in the struggle, and the contents were lodged in Hazlewood's shoulder, who instantly fell. I saw no more, for the whole scene reeled before my eyes, and I fainted away; but, by Lucy's report, the unhappy perpetrator of this action gazed a moment on the scene before him, until her screams began to alarm the people upon the lake, several of whom now came in sight. He then bounded over a hedge which divided the footpath from the plantation, and has not since been heard of. The servant made no attempt to stop or secure him, and the report he made of the matter to those who came up to us induced them rather to exercise their humanity in recalling me to life, than show their courage by pursuing a desperado, described by the groom as a man of tremendous personal strength, and completely armed.

'Hazlewood was conveyed home, that is, to Woodbourne, in safety; I trust his wound will prove in no respect dangerous, though he suffers much. But to Brown the consequences must be most disastrous. He is already the object of my father's resentment, and he has now incurred danger from the law of the country, as well as from the clamorous vengeance of the father of Hazlewood, who threatens to move heaven and earth against the author of his son's wound. How will he be able to shroud himself from the vindictive activity of the pursuit? how to defend himself, if taken, against the severity of laws which, I am told, may even affect his life? and how can I find means to warn him of his danger? Then poor Lucy's ill-concealed grief, occasioned by her lover's wound, is another source of distress to me, and everything round me appears to bear witness against that indiscretion which has occasioned this calamity.

'For two days I was very ill indeed. The news that Hazlewood was recovering, and that the person who had shot him was nowhere to be traced, only that for certain he was one of the leaders of the gang of smugglers, gave me some comfort. The suspicion and pursuit being directed towards those people must naturally facilitate Brown's escape,

and I trust has ere this ensured it. But patrols of horse and foot traverse the country in all directions, and I am tortured by a thousand confused and unauthenticated rumours of arrests and discoveries.

'Meanwhile my greatest source of comfort is the generous candour of Hazlewood, who persists in declaring that, with whatever intentions the person by whom he was wounded approached our party, he is convinced the gun went off in the struggle by accident, and that the injury he received was undesigned. The groom, on the other hand, maintains that the piece was wrenched out of Hazlewood's hands and deliberately pointed at his body, and Lucy inclines to the same opinion; I do not suspect them of wilful exaggeration, yet such is the fallacy of human testimony, for the unhappy shot was most unquestionably discharged unintentionally. Perhaps it would be the best way to confide the whole secret to Hazlewood; but he is very young, and I feel the utmost repugnance to communicate to him my folly. I once thought of disclosing the mystery to Lucy, and began by asking what she recollected of the person and features of the man whom we had so unfortunately met; but she ran out into such a horrid description of a hedgeruffian, that I was deprived of all courage and disposition to own my attachment to one of such appearance as she attributed to him. I must say Miss Bertram is strangely biassed by her prepossessions, for there are few handsomer men than poor Brown. I had not seen him for a long time, and even in his strange and sudden apparition on this unhappy occasion, and under every disadvantage, his form seems to me, on reflection, improved in grace and his features in expressive dignity. Shall we ever meet again? Who can answer that question? Write to me kindly, my dearest Matilda; but when did you otherwise? Yet, again, write to me soon, and write to me kindly. I am not in a situation to profit by advice or reproof, nor have I my usual spirits to parry them by raillery. I feel the terrors of a child who has in heedless sport put in motion some powerful piece of machinery; and, while he beholds wheels revolving, chains clashing, cylinders rolling around him, is equally astonished at the tremendous powers which his

weak agency has called into action, and terrified for the consequences which he is compelled to await, without the possibility of averting them.

'I must not omit to say that my father is very kind and affectionate. The alarm which I have received forms a sufficient apology for my nervous complaints. My hopes are, that Brown has made his escape into the sister kingdom of England, or perhaps to Ireland or the Isle of Man. In either case he may await the issue of Hazlewood's wound with safety and with patience, for the communication of these countries with Scotland, for the purpose of justice, is not (thank Heaven) of an intimate nature. The consequences of his being apprehended would be terrible at this moment. I endeavour to strengthen my mind by arguing against the possibility of such a calamity. Alas! how soon have sorrows and fears, real as well as severe, followed the uniform and tranquil state of existence at which so lately I was disposed to repine! But I will not oppress you any longer with my complaints. Adieu, my dearest Matilda! 'JULIA MANNERING.'

zaid n. adwan

CHAPTER III

A man may see how this world goes with no eyes. Look with
thine ears. See how yon justice rails upon yon simple thief.
Hark in thine ear: Change places; and, handy-dandy, which
is the justice, which is the thief?

--King Lear.

Among those who took the most lively interest in endeavouring to discover the person by whom young Charles Hazlewood had been waylaid and wounded was Gilbert Glossin, Esquire, late writer in ----, now Laird of Ellangowan, and one of the worshipful commission of justices of the peace for the county of ----. His motives for exertion on this occasion were manifold; but we presume that our readers, from what they already know of this gentleman, will acquit him of being actuated by any zealous or intemperate love of abstract justice.

The truth was, that this respectable personage felt himself less at ease than he had expected, after his machinations put him in possession of his benefactor's estate. His reflections within doors, where so much occurred to remind him of former times, were not always the self-congratulations of successful stratagem. And when he looked abroad he could not but be sensible that he was excluded from the society of the gentry of the county, to whose rank he conceived he had raised himself. He was not admitted to their clubs, and at meetings of a public nature, from which he could not be altogether excluded, he found himself thwarted and looked upon with coldness and contempt. Both principle and prejudice cooperated in creating this dislike; for the gentlemen of the county despised him for the lowness of his birth, while they hated him for the means by which he had raised his fortune. With the common people his reputation stood still worse. They would neither yield him the territorial appellation of Ellangowan nor the usual compliment of Mr. Glossin: with them he was bare Glossin; and so incredibly was his vanity interested by this trifling circumstance, that he was known to give half-a-crown to a beggar because he had thrice called him Ellangowan in beseeching him for a penny. He therefore felt acutely the general want of respect, and particularly when he contrasted his own character and reception in society with those of Mr. Mac-Morlan, who, in far inferior worldly circumstances, was beloved and respected both by rich and poor, and was slowly but securely laying the foundation of a moderate fortune, with the general good-will and esteem of all who knew him.

Glossin, while he repined internally at what he would fain have called the prejudices and prepossessions of the country, was too wise to make any open complaint. He was sensible his elevation was too recent to be immediately forgotten, and the means by which he had attained it too odious to be soon forgiven. But time, thought he, diminishes wonder and palliates misconduct. With the dexterity, therefore, of one who made his fortune by studying the weak points of human nature, he determined to lie by for opportunities to make himself useful even to those who most disliked him; trusting that his own abilities, the disposition of country gentlemen to get into quarrels, when a lawyer's advice becomes precious, and a thousand other contingencies, of which, with patience and address, he doubted not to be able to avail himself, would soon place him in a more important and respectable light to his neighbours, and perhaps raise him to the eminence sometimes attained by a shrewd, worldly, bustling man of business, when, settled among a generation of country gentlemen, he becomes, in Burns's language,

The tongue of the trump to them a'.

The attack on Colonel Mannering's house, followed by the accident of Hazlewood's wound, appeared to Glossin a proper opportunity to impress upon the country at large the service which could be rendered by an active magistrate (for he had been in the commission for some time), well acquainted with the law, and no less so with the haunts and habits of the illicit traders. He had acquired the latter kind of experience by a former close alliance with some of the most desperate smugglers, in consequence of which he had occasionally acted, sometimes as a partner, sometimes as legal adviser, with these persons, But the connexion had been dropped many years; nor, considering how short the race of eminent characters of this description, and the frequent circumstances occur to make them retire from particular scenes of action, had he the least reason to think that his present researches could possibly compromise any old friend who might possess means of retaliation. The having been concerned in these practices abstractedly was a circumstance which, according to his opinion, ought in no respect to interfere with his

now using his experience in behalf of the public, or rather to further his own private views. To acquire the good opinion and countenance of Colonel Mannering would be no small object to a gentleman who was much disposed to escape from Coventry, and to gain the favour of old Hazlewood, who was a leading man in the county, was of more importance still. Lastly, if he should succeed in discovering, apprehending, and convicting the culprits, he would have the satisfaction of mortifying, and in some degree disparaging, Mac-Morlan, to whom, as sheriff-substitute of the county, this sort of investigation properly belonged, and who would certainly suffer in public opinion should the voluntary exertions of Glossin be more successful than his own.

Actuated by motives so stimulating, and well acquainted with the lower retainers of the law, Glossin set every spring in motion to detect and apprehend, if possible, some of the gang who had attacked Woodbourne, and more particularly the individual who had wounded Charles Hazlewood. He promised high rewards, he suggested various schemes, and used his personal interest among his old acquaintances who favoured the trade, urging that they had better make sacrifice of an understrapper or two than incur the odium of having favoured such atrocious proceedings. But for some time all these exertions were in vain. The common people of the country either favoured or feared the smugglers too much to afford any evidence against them. At length this busy magistrate obtained information that a man, having the dress and appearance of the person who had wounded Hazlewood, had lodged on the evening before the rencontre at the Gordon Arms in Kippletringan. Thither Mr. Glossin immediately went, for the purpose of interrogating our old acquaintance Mrs. Mac-Candlish.

The reader may remember that Mr. Glossin did not, according to this good woman's phrase, stand high in her books. She therefore attended his summons to the parlour slowly and reluctantly, and, on entering the room, paid her respects in the coldest possible manner. The dialogue then proceeded as follows:--

'A fine frosty morning, Mrs. Mac-Candlish.'

‘Ay, sir; the morning’s weel eneugh,’ answered the landlady, drily.

‘Mrs. Mac-Candlish, I wish to know if the justices are to dine here as usual after the business of the court on Tuesday?’

‘I believe--I fancy sae, sir--as usual’ (about to leave the room).

‘Stay a moment, Mrs. Mac-Candlish; why, you are in a prodigious hurry, my good friend! I have been thinking a club dining here once a month would be a very pleasant thing.’

‘Certainly, sir; a club of RESPECTABLE gentlemen.’

‘True, true,’ said Glossin, ‘I mean landed proprietors and gentlemen of weight in the county; and I should like to set such a thing a-going.’

The short dry cough with which Mrs. Mac-Candlish received this proposal by no means indicated any dislike to the overture abstractedly considered, but inferred much doubt how far it would succeed under the auspices of the gentleman by whom it was proposed. It was not a cough negative, but a cough dubious, and as such Glossin felt it; but it was not his cue to take offence.

‘Have there been brisk doings on the road, Mrs. Mac-Candlish? Plenty of company, I suppose?’

‘Pretty weel, sir,--but I believe I am wanted at the bar.’

‘No, no; stop one moment, cannot you, to oblige an old customer? Pray, do you remember a remarkably tall young man who lodged one night in your house last week?’

‘Troth, sir, I canna weel say; I never take heed whether my company be lang or short, if they make a lang bill.’

‘And if they do not, you can do that for them, eh, Mrs. Mac-Candlish? ha, ha, ha! But this young man that I inquire after was upwards of six feet high, had a dark frock, with metal buttons, light-brown hair unpowdered, blue eyes, and a straight nose, travelled on foot, had no servant or baggage; you surely can remember having seen such a traveller?’

‘Indeed, sir,’ answered Mrs. Mac-Candlish, bent on baffling his inquiries, ‘I canna charge my memory about the matter; there’s mair to do in a house like this, I trow, than to look after passengers’ hair, or their een, or noses either.’

‘Then, Mrs. Mac-Candlish, I must tell you in plain terms that this person is suspected of having been guilty of a crime; and it is in consequence of these suspicions that I, as a magistrate, require this information from you; and if you refuse to answer my questions, I must put you upon your oath.’

‘Troth, sir, I am no free to swear; [Footnote: Some of the strict dissenters decline taking an oath before a civil magistrate.] we ay gaed to the Antiburgher meeting. It’s very true, in Bailie Mac-Candlish’s time (honest man) we keepit the kirk, whilk was most seemly in his station, as having office; but after his being called to a better place than Kippletringan I hae gaen back to worthy Maister Mac-Grainer. And so ye see, sir, I am no clear to swear without speaking to the minister, especially against ony sackless puir young thing that’s gaun through the country, stranger and freendless like.’

‘I shall relieve your scruples, perhaps, without troubling Mr. Mac-Grainer, when I tell you that this fellow whom I inquire after is the man who shot your young friend Charles Hazlewood.’

‘Gudeness! wha could hae thought the like o’ that o’ him? Na, if it had been for debt, or e’en for a bit tuilzie wi’ the gauger, the deil o’ Nelly Mac-Candlish’s tongue should ever hae wranged him. But if he really shot young Hazlewood--but I canna think it, Mr. Glossin; this will be some o’ your skits now. I canna think it o’ sae douce a lad; na, na, this is just some o’ your auld skits. Ye’ll be for having a horning or a caption after him.’

‘I see you have no confidence in me, Mrs. Mac-Candlish; but look at these declarations, signed by the persons who saw the crime committed, and judge yourself if the description of the ruffian be not that of your guest.’

He put the papers into her hand, which she perused very carefully, often taking off her spectacles to cast her eyes up to heaven, or perhaps to wipe a tear from them, for

young Hazlewood was an especial favourite with the good dame. ‘Aweel, aweel,’ she said, when she had concluded her examination, ‘since it’s e’en sae, I gie him up, the villain. But O, we are erring mortals! I never saw a face I liked better, or a lad that was mair douce and canny: I thought he had been some gentleman under trouble. But I gie him up, the villain! To shoot Charles Hazlewood, and before the young ladies, poor innocent things! I gie him up.’

‘So you admit, then, that such a person lodged here the night before this vile business?’

‘Troth did he, sir, and a’ the house were taen wi’ him, he was sic a frank, pleasant young man. It wasna for his spending, I’m sure, for he just had a mutton-chop and a mug of ale, and maybe a glass or twa o’ wine; and I asked him to drink tea wi’ mysell, and didna put that into the bill; and he took nae supper, for he said he was defeat wi’ travel a’ the night afore. I daresay now it had been on some hellicat errand or other.’

‘Did you by any chance learn his name?’

‘I wot weel did I,’ said the landlady, now as eager to communicate her evidence as formerly desirous to suppress it. ‘He tell’d me his name was Brown, and he said it was likely that an auld woman like a gipsy wife might be asking for him. Ay, ay! tell me your company, and I’ll tell you wha ye are! O the villain! Aweel, sir, when he gaed away in the morning he paid his bill very honestly, and gae something to the chambermaid nae doubt; for Grizzy has naething frae me, by twa pair o’ new shoo ilka year, and maybe a bit compliment at Hansel Monanday--’ Here Glossin found it necessary to interfere and bring the good woman back to the point.

‘Ou then, he just said, “If there comes such a person to inquire after Mr. Brown, you will say I am gone to look at the skaters on Loch Creeran, as you call it, and I will be back here to dinner.” But he never came back, though I expected him sae faithfully that I gae a look to making the friar’s chicken mysell, and to the crappitheads too, and that’s

what I dinna do for ordinary, Mr. Glossin. But little did I think what skating wark he was gaun about--to shoot Mr. Charles, the innocent lamb!'

Mr. Glossin having, like a prudent examinator, suffered his witness to give vent to all her surprise and indignation, now began to inquire whether the suspected person had left any property or papers about the inn.

'Troth, he put a parcel--a sma' parcel--under my charge, and he gave me some siller, and desired me to get him half-a-dozen ruffled sarks, and Peg Pasley's in hands wi' them e'en now; they may serve him to gang up the Lawnmarket [Footnote: The procession of the criminals to the gallows of old took that direction, moving, as the school-boy rhyme had it, Up the Lawnmarket, Down the West Bow, Up the lang ladder, And down the little tow.] in, the scoundrel!' Mr. Glossin then demanded to see the packet, but here mine hostess demurred.

'She didna ken--she wad not say but justice should take its course--but when a thing was trusted to ane in her way, doubtless they were responsible; but she suld cry in Deacon Bearcliff, and if Mr. Glossin liked to tak an inventar o' the property, and gie her a receipt before the Deacon--or, what she wad like muckle better, an it could be sealed up and left in Deacon Bearcliff's hands--it wad mak her mind easy. She was for naething but justice on a' sides.'

Mrs. Mac-Candlish's natural sagacity and acquired suspicion being inflexible, Glossin sent for Deacon Bearcliff, to speak 'anent the villain that had shot Mr. Charles Hazlewood.' The Deacon accordingly made his appearance with his wig awry, owing to the hurry with which, at this summons of the Justice, he had exchanged it for the Kilmarnock cap in which he usually attended his customers. Mrs. Mac-Candlish then produced the parcel deposited with her by Brown, in which was found the gipsy's purse. On perceiving the value of the miscellaneous contents, Mrs. Mac-Candlish internally congratulated herself upon the precautions she had taken before delivering them up to Glossin, while he, with an appearance of disinterested candour, was the first to propose

they should be properly inventoried, and deposited with Deacon Bearcliff, until they should be sent to the Crown-office. ‘He did not,’ he observed, ‘like to be personally responsible for articles which seemed of considerable value, and had doubtless been acquired by the most nefarious practices.’

He then examined the paper in which the purse had been wrapt up. It was the back of a letter addressed to V. Brown, Esquire, but the rest of the address was torn away. The landlady, now as eager to throw light upon the criminal’s escape as she had formerly been desirous of withholding it, for the miscellaneous contents of the purse argued strongly to her mind that all was not right,--Mrs. Mac-Candlish, I say, now gave Glossin to understand that her position and hostler had both seen the stranger upon the ice that day when young Hazlewood was wounded.

Our readers’ old acquaintance Jock Jabos was first summoned, and admitted frankly that he had seen and conversed upon the ice that morning with a stranger, who, he understood, had lodged at the Gordon Arms the night before.

‘What turn did your conversation take?’ said Glossin.

‘Turn? ou, we turned nae gate at a’, but just keep it straight forward upon the ice like.’

‘Well, but what did ye speak about?’

‘Ou, he just asked questions like ony ither stranger,’ answered the postilion, possessed, as it seemed, with the refractory and uncommunicative spirit which had left his mistress.

‘But about what?’ said Glossin.

‘Ou, just about the folk that was playing at the curling, and about auld Jock Stevenson that was at the cock, and about the leddies, and sic like.’

‘What ladies? and what did he ask about them, Jock?’ said the interrogator.

Zaid n. adwan

‘What leddies? Ou, it was Miss Jowlia Mannering and Miss Lucy Bertram, that ye ken fu’ weel yoursell, Mr. Glossin; they were walking wi’ the young Laird of Hazlewood upon the ice.’

‘And what did you tell him about them?’ demanded Glossin.

‘Tut, we just said that was Miss Lucy Bertram of Ellangowan, that should ance have had a great estate in the country; and that was Miss Jowlia Mannering, that was to be married to young Hazlewood, see as she was hinging on his arm. We just spoke about our country clashes like; he was a very frank man.’

‘Well, and what did he say in answer?’

‘Ou, he just stared at the young leddies very keen-like, and asked if it was for certain that the marriage was to be between Miss Mannering and young Hazlewood; and I answered him that it was for positive and absolute certain, as I had an undoubted right to say sae; for my third cousin Jean Clavers (she’s a relation o’ your ain, Mr. Glossin, ye wad ken Jean lang syne?), she’s sib to the houskeeper at Woodbourne, and she’s tell’d me mair than ance that there was naething could be mair likely.’

‘And what did the stranger say when you told him all this?’ said Glossin.

‘Say?’ echoed the postilion, ‘he said naething at a’; he just stared at them as they walked round the loch upon the ice, as if he could have eaten them, and he never took his ee aff them, or said another word, or gave another glance at the bonspiel, though there was the finest fun amang the curlers ever was seen; and he turned round and gaed aff the loch by the kirkstile through Woodbourne fir-plantings, and we saw nae mair o’ him.’

‘Only think,’ said Mrs. Mac-Candlish, ‘what a hard heart he maun hae had, to think o’ hurting the poor young gentleman in the very presence of the leddy he was to be married to!’

‘O, Mrs. Mac-Candlish,’ said Glossin, ‘there’s been many cases such as that on the record; doubtless he was seeking revenge where it would be deepest and sweetest.’

‘God pity us!’ said Deacon Bearcliff, ‘we’re puir frail creatures when left to oursells! Ay, he forgot wha said, “Vengeance is mine, and I will repay it.”’

‘Weel, aweel, sirs,’ said Jabos, whose hard-headed and uncultivated shrewdness seemed sometimes to start the game when others beat the bush--’weel, weel, ye may be a’ mista’en yet; I’ll never believe that a man would lay a plan to shoot another wi’ his ain gun. Lord help ye, I was the keeper’s assistant down at the Isle mysell, and I’ll uphaud it the biggest man in Scotland shouldna take a gun frae me or I had weized the slugs through him, though I’m but sic a little feckless body, fit for naething but the outside o’ a saddle and the fore-end o’ a poschay; na, na, nae living man wad venture on that. I’ll wad my best buckskins, and they were new coft at Kirkcudbright Fair, it’s been a chance job after a’. But if ye hae naething mair to say to me, I am thinking I maun gang and see my beasts fed’; and he departed accordingly.

The hostler, who had accompanied him, gave evidence to the same purpose. He and Mrs. Mac-Candlish were then reinterrogated whether Brown had no arms with him on that unhappy morning. ‘None,’ they said, ‘but an ordinary bit cutlass or hanger by his side.’

‘Now,’ said the Deacon, taking Glossin by the button (for, in considering this intricate subject, he had forgot Glossin’s new accession of rank), ‘this is but doubtfu’ after a’, Maister Gilbert; for it was not sae dooms likely that he would go down into battle wi’ sic sma’ means.’

Glossin extricated himself from the Deacon’s grasp and from the discussion, though not with rudeness; for it was his present interest to buy golden opinions from all sorts of people. He inquired the price of tea and sugar, and spoke of providing himself for the year; he gave Mrs. Mac-Candlish directions to have a handsome entertainment in readiness for a party of five friends whom he intended to invite to dine with him at the Gordon Arms next Saturday week; and, lastly, he gave a half-crown to Jock Jabos, whom the hostler had deputed to hold his steed.

zaid n. adwan

‘Weel,’ said the Deacon to Mrs. Mac-Candlish, as he accepted her offer of a glass of bitters at the bar, ‘the deil’s no sae ill as he’s ca’d. It’s pleasant to see a gentleman pay the regard to the business o’ the county that Mr. Glossin does.’

‘Ay, ‘deed is’t, Deacon,’ answered the landlady; ‘and yet I wonder our gentry leave their ain wark to the like o’ him. But as lang as siller’s current, Deacon, folk maunna look ower nicely at what king’s head’s on’t.’

‘I doubt Glossin will prove but shand after a’, mistress,’ said Jabos, as he passed through the little lobby beside the bar; ‘but this is a gude half-crown ony way.’

CHAPTER IV

A man that apprehends death to be no more dreadful but as a
drunken sleep, careless, reckless, and fearless of what’s
past, present, or to come; insensible of mortality, and
desperately mortal.

--Measure for Measure.

Glossin had made careful minutes of the information derived from these examinations. They threw little light upon the story, so far as he understood its purport; but the better-informed reader has received through means of this investigation an account of Brown’s proceedings, between the moment when we left him upon his walk

zaid n. adwan

to Kippletringan and the time when, stung by jealousy, he so rashly and unhappily presented himself before Julia Mannering, and well-nigh brought to a fatal termination the quarrel which his appearance occasioned.

Glossin rode slowly back to Ellangowan, pondering on what he had heard, and more and more convinced that the active and successful prosecution of this mysterious business was an opportunity of ingratiating himself with Hazlewood and Mannering to be on no account neglected. Perhaps, also, he felt his professional acuteness interested in bringing it to a successful close. It was, therefore, with great pleasure that, on his return to his house from Kippletringan, he heard his servants announce hastily, 'that Mac-Guffog, the thief-taker, and twa or three concurrents, had a man in hands in the kitchen waiting for his honour.'

He instantly jumped from horseback, and hastened into the house. 'Send my clerk here directly, ye'll find him copying the survey of the estate in the little green parlour. Set things to rights in my study, and wheel the great leathern chair up to the writing-table; set a stool for Mr. Scrow. Scrow (to the clerk, as he entered the presence-chamber), hand down Sir George Mackenzie "On Crimes"; open it at the section "Vis Publica et Privata," and fold down a leaf at the passage "anent the bearing of unlawful weapons." Now lend me a hand off with my muckle-coat, and hang it up in the lobby, and bid them bring up the prisoner; I trow I'll sort him; but stay, first send up Mac-Guffog. Now, Mac-Guffog, where did ye find this chield?'

Mac-Guffog, a stout, bandy-legged fellow, with a neck like a bull, a face like a firebrand, and a most portentous squint of the left eye, began, after various contortions by way of courtesy to the Justice, to tell his story, eking it out by sundry sly nods and knowing winks, which appeared to bespeak an intimate correspondence of ideas between the narrator and his principal auditor. 'Your honour sees I went down to yon place that your honour spoke o', that's kept by her that your honour kens o', by the sea-side. So says she, "What are you wanting here? ye'll be come wi' a broom in your

pocket frae Ellangowan?"--So says I, “Deil a broom will come frae there awa, for ye ken,” says I, “his honour Ellangowan himsell in former times--”’

‘Well, well,’ said Glossin, ‘no occasion to be particular, tell the essentials.’

‘Weel, so we sat niffering about some brandy that I said I wanted, till he came in.’

‘Who?’

‘He!’ pointing with his thumb inverted to the kitchen, where the prisoner was in custody. ‘So he had his griego wrapped close round him, and I judged he was not dry-handed; so I thought it was best to speak proper, and so he believed I was a Manks man, and I kept ay between him and her, for fear she had whistled. And then we began to drink about, and then I betted he would not drink out a quartern of Hollands without drawing breath, and then he tried it, and just then Slounging Jock and Dick Spur’em came in, and we clinked the darbies on him, took him as quiet as a lamb; and now he’s had his bit sleep out, and is as fresh as a May gowan, to answer what your honour likes to speir.’ This narrative, delivered with a wonderful quantity of gesture and grimace, received at the conclusion the thanks and praises which the narrator expected.

‘Had he no arms?’ asked the Justice.

‘Ay, ay, they are never without barkers and slashers.’

‘Any papers?’

‘This bundle,’ delivering a dirty pocket-book.

‘Go downstairs then, Mac-Guffog, and be in waiting.’ The officer left the room.

The clink of irons was immediately afterwards heard upon the stair, and in two or three minutes a man was introduced, handcuffed and fettered. He was thick, brawny, and muscular, and although his shagged and grizzled hair marked an age somewhat advanced, and his stature was rather low, he appeared, nevertheless, a person whom few would have chosen to cope with in personal conflict. His coarse and savage features were still flushed, and his eye still reeled under the influence of the strong potation

which had proved the immediate cause of his seizure. But the sleep, though short, which Mac-Guffog had allowed him, and still more a sense of the peril of his situation, had restored to him the full use of his faculties. The worthy judge and the no less estimable captive looked at each other steadily for a long time without speaking. Glossin apparently recognised his prisoner, but seemed at a loss how to proceed with his investigation. At length he broke silence.--'Soh, Captain, this is you? you have been a stranger on this coast for some years.'

'Stranger?' replied the other. 'Strange enough, I think; for hold me der deyvil, if I been ever here before.'

'That won't pass, Mr. Captain.'

'That MUST pass, Mr. Justice, sapperment!'

'And who will you be pleased to call yourself, then, for the present,' said Glossin, 'just until I shall bring some other folks to refresh your memory concerning who you are, or at least who you have been?'

'What bin I? donner and blitzen! I bin Jans Jansen, from Cuxhaven; what sall Ich bin?'

Glossin took from a case which was in the apartment a pair of small pocket pistols, which he loaded with ostentatious care. 'You may retire,' said he to his clerk, 'and carry the people with you, Scrow; but wait in the lobby within call.'

The clerk would have offered some remonstrances to his patron on the danger of remaining alone with such a desperate character, although ironed beyond the possibility of active exertion, but Glossin waved him off impatiently. When he had left the room the Justice took two short turns through the apartment, then drew his chair opposite to the prisoner, so as to confront him fully, placed the pistols before him in readiness, and said in a steady voice, 'You are Dirk Hatteraick of Flushing, are you not?'

The prisoner turned his eye instinctively to the door, as if he apprehended some one was listening. Glossin rose, opened the door, so that from the chair in which his prisoner

sate he might satisfy himself there was no eavesdropper within hearing, then shut it, resumed his seat, and repeated his question, 'You are Dirk Hatteraick, formerly of the Yungfrauw Haagenslaapen, are you not?'

'Tousand deyvils! and if you know that, why ask me?' said the prisoner.

'Because I am surprised to see you in the very last place where you ought to be, if you regard your safety,' observed Glossin, coolly.

'Der deyvil! no man regards his own safety that speaks so to me!'

'What? unarmed, and in irons! well said, Captain!' replied Glossin, ironically. 'But, Captain, bullying won't do; you'll hardly get out of this country without accounting for a little accident that happened at Warroch Point a few years ago.'

Hatteraick's looks grew black as midnight.

'For my part,' continued Glossin, 'I have no particular wish to be hard upon an old acquaintance; but I must do my duty. I shall send you off to Edinburgh in a post-chaise and four this very day.'

'Poz donner! you would not do that?' said Hatteraick, in a lower and more humbled tone; 'why, you had the matter of half a cargo in bills on Vanbeest and Vanbruggen.'

'It is so long since, Captain Hatteraick,' answered Glossin, superciliously, 'that I really forget how I was recompensed for my trouble.'

'Your trouble? your silence, you mean.'

'It was an affair in the course of business,' said Glossin, 'and I have retired from business for some time.'

'Ay, but I have a notion that I could make you go steady about and try the old course again,' answered Dirk Hatteraick. 'Why, man, hold me der deyvil, but I meant to visit you and tell you something that concerns you.'

'Of the boy?' said Glossin, eagerly.

'Yaw, Mynheer,' replied the Captain, coolly.

‘He does not live, does he?’

‘As lifelich as you or I,’ said Hatteraick.

‘Good God! But in India?’ exclaimed Glossin.

‘No, tousand deyvils, here! on this dirty coast of yours,’ rejoined the prisoner.

‘But, Hatteraick, this,--that is, if it be true, which I do not believe,--this will ruin us both, for he cannot but remember your neat job; and for me, it will be productive of the worst consequences! It will ruin us both, I tell you.’

‘I tell you,’ said the seaman, ‘it will ruin none but you; for I am done up already, and if I must strap for it, all shall out.’

‘Zounds,’ said the Justice impatiently, ‘what brought you back to this coast like a madman?’

‘Why, all the gelt was gone, and the house was shaking, and I thought the job was clayed over and forgotten,’ answered the worthy skipper.

‘Stay; what can be done?’ said Glossin, anxiously. ‘I dare not discharge you; but might you not be rescued in the way? Ay sure! a word to Lieutenant Brown, and I would send the people with you by the coast-road.’

‘No, no! that won’t do. Brown’s dead, shot, laid in the locker, man; the devil has the picking of him.

‘Dead? shot? At Woodbourne, I suppose?’ replied Glossin.

‘Yaw, Mynheer.’

Glossin paused; the sweat broke upon his brow with the agony of his feelings, while the hard-featured miscreant who sat opposite coolly rolled his tobacco in his cheek and squirted the juice into the fire-grate. ‘It would be ruin,’ said Glossin to himself, ‘absolute ruin, if the heir should reappear; and then what might be the consequence of conniving with these men? Yet there is so little time to take measures. Hark you, Hatteraick; I can’t set you at liberty; but I can put you where you may set yourself at

liberty, I always like to assist an old friend. I shall confine you in the old castle for to-night, and give these people double allowance of grog. MacGuffog will fall in the trap in which he caught you. The stancheons on the window of the strong room, as they call it, are wasted to pieces, and it is not above twelve feet from the level of the ground without, and the snow lies thick.'

'But the darbies,' said Hatteraick, looking upon his fetters.

'Hark ye,' said Glossin, going to a tool chest, and taking out a small file, 'there's a friend for you, and you know the road to the sea by the stairs.' Hatteraick shook his chains in ecstasy, as if he were already at liberty, and strove to extend his fettered hand towards his protector. Glossin laid his finger upon his lips with a cautious glance at the door, and then proceeded in his instructions. 'When you escape, you had better go to the Kaim of Derncleugh.'

'Donner! that howff is blown.'

'The devil! well, then, you may steal my skiff that lies on the beach there, and away. But you must remain snug at the Point of Warroch till I come to see you.'

'The Point of Warroch?' said Hatteraick, his countenance again falling; 'what, in the cave, I suppose? I would rather it were anywhere else; es spuckt da: they say for certain that he walks. But, donner and blitzen! I never shunned him alive, and I won't shun him dead. Strafe mich helle! it shall never be said Dirk Hatteraick feared either dog or devil! So I am to wait there till I see you?'

'Ay, ay,' answered Glossin, 'and now I must call in the men.' He did so accordingly.

'I can make nothing of Captain Jansen, as he calls himself, Mac-Guffog, and it's now too late to bundle him off to the county jail. Is there not a strong room up yonder in the old castle?'

'Ay is there, sir; my uncle the constable ance kept a man there for three days in auld Ellangowan's time. But there was an unco dust about it; it was tried in the Inner House afore the Feifteen.'

‘I know all that, but this person will not stay there very long; it’s only a makeshift for a night, a mere lock-up house till farther examination. There is a small room through which it opens; you may light a fire for yourselves there, and I ‘ll send you plenty of stuff to make you comfortable. But be sure you lock the door upon the prisoner; and, hark ye, let him have a fire in the strong room too, the season requires it. Perhaps he’ll make a clean breast to-morrow.’

With these instructions, and with a large allowance of food and liquor, the Justice dismissed his party to keep guard for the night in the old castle, under the full hope and belief that they would neither spend the night in watching nor prayer.

There was little fear that Glossin himself should that night sleep over-sound. His situation was perilous in the extreme, for the schemes of a life of villainy seemed at once to be crumbling around and above him. He laid himself to rest, and tossed upon his pillow for a long time in vain. At length he fell asleep, but it was only to dream of his patron, now as he had last seen him, with the paleness of death upon his features, then again transformed into all the vigour and comeliness of youth, approaching to expel him from the mansion-house of his fathers. Then he dreamed that, after wandering long over a wild heath, he came at length to an inn, from which sounded the voice of revelry; and that when he entered the first person he met was Frank Kennedy, all smashed and gory, as he had lain on the beach at Warroch Point, but with a reeking punch-bowl in his hand. Then the scene changed to a dungeon, where he heard Dirk Hatteraick, whom he imagined to be under sentence of death, confessing his crimes to a clergyman. ‘After the bloody deed was done,’ said the penitent, ‘we retreated into a cave close beside, the secret of which was known but to one man in the country; we were debating what to do with the child, and we thought of giving it up to the gipsies, when we heard the cries of the pursuers hallooing to each other. One man alone came straight to our cave, and it was that man who knew the secret; but we made him our friend at the expense of half the value of the goods saved. By his advice we carried off

the child to Holland in our consort, which came the following night to take us from the coast. That man was--'

'No, I deny it! it was not I!' said Glossin, in half-uttered accents; and, struggling in his agony to express his denial more distinctly, he awoke.

It was, however, conscience that had prepared this mental phantasmagoria. The truth was that, knowing much better than any other person the haunts of the smugglers, he had, while the others were searching in different directions, gone straight to the cave, even before he had learned the murder of Kennedy, whom he expected to find their prisoner. He came upon them with some idea of mediation, but found them in the midst of their guilty terrors, while the rage which had hurried them on to murder began, with all but Hatteraick, to sink into remorse and fear. Glossin was then indigent and greatly in debt, but he was already possessed of Mr. Bertram's ear, and, aware of the facility of his disposition, he saw no difficulty in enriching himself at his expense, provided the heir-male were removed, in which case the estate became the unlimited property of the weak and prodigal father. Stimulated by present gain and the prospect of contingent advantage, he accepted the bribe which the smugglers offered in their terror, and connived at, or rather encouraged, their intention of carrying away the child of his benefactor who, if left behind, was old enough to have described the scene of blood which he had witnessed. The only palliative which the ingenuity of Glossin could offer to his conscience was, that the temptation was great, and came suddenly upon him, embracing as it were the very advantages on which his mind had so long rested, and promising to relieve him from distresses which must have otherwise speedily overwhelmed him. Besides, he endeavoured to think that self-preservation rendered his conduct necessary. He was, in some degree, in the power of the robbers, and pleaded hard with his conscience that, had he declined their offers, the assistance which he could have called for, though not distant, might not have arrived in time to save him from men who, on less provocation, had just committed murder.

Galled with the anxious forebodings of a guilty conscience, Glossin now arose and looked out upon the night. The scene which we have already described in the third chapter of this story, was now covered with snow, and the brilliant, though waste, whiteness of the land gave to the sea by contrast a dark and livid tinge. A landscape covered with snow, though abstractedly it may be called beautiful, has, both from the association of cold and barrenness and from its comparative infrequency, a wild, strange, and desolate appearance. Objects well known to us in their common state have either disappeared, or are so strangely varied and disguised that we seem gazing on an unknown world. But it was not with such reflections that the mind of this bad man was occupied. His eye was upon the gigantic and gloomy outlines of the old castle, where, in a flanking tower of enormous size and thickness, glimmered two lights, one from the window of the strong room, where Hatteraick was confined, the other from that of the adjacent apartment, occupied by his keepers. 'Has he made his escape, or will he be able to do so? Have these men watched, who never watched before, in order to complete my ruin? If morning finds him there, he must be committed to prison; Mac-Morlan or some other person will take the matter up; he will be detected, convicted, and will tell all in revenge!'

While these racking thoughts glided rapidly through Glossin's mind, he observed one of the lights obscured, as by an opaque body placed at the window. What a moment of interest! 'He has got clear of his irons! he is working at the stancheons of the window! they are surely quite decayed, they must give way. O God! they have fallen outward, I heard them clink among the stones! the noise cannot fail to wake them. Furies seize his Dutch awkwardness! The light burns free again; they have torn him from the window, and are binding him in the room! No! he had only retired an instant on the alarm of the falling bars; he is at the window again, and the light is quite obscured now; he is getting out!'

Zaid H. adwan

A heavy sound, as of a body dropped from a height among the snow, announced that Hatteraick had completed his escape, and shortly after Glossin beheld a dark figure, like a shadow, steal along the whitened beach and reach the spot where the skiff lay. New cause for fear! 'His single strength will be unable to float her,' said Glossin to himself; 'I must go to the rascal's assistance. But no! he has got her off, and now, thank God, her sail is spreading itself against the moon; ay, he has got the breeze now; would to heaven it were a tempest, to sink him to the bottom!'

After this last cordial wish, he continued watching the progress of the boat as it stood away towards the Point of Warroch, until he could no longer distinguish the dusky sail from the gloomy waves over which it glided. Satisfied then that the immediate danger was averted, he retired with somewhat more composure to his guilty pillow.

CHAPTER V

Why dost not comfort me, and help me out
From this unhallowed and blood-stained hole?

Titus Andronicus.

On the next morning, great was the alarm and confusion of the officers when they discovered the escape of their prisoner. Mac-Guffog appeared before Glossin with a head perturbed with brandy and fear, and incurred a most severe reprimand for neglect of duty. The resentment of the Justice appeared only to be suspended by his anxiety to

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recover possession of the prisoner, and the thief-takers, glad to escape from his awful and incensed presence, were sent off in every direction (except the right one) to recover their prisoner, if possible. Glossin particularly recommended a careful search at the Kaim of Derncleugh, which was occasionally occupied under night by vagrants of different descriptions. Having thus dispersed his myrmidons in various directions, he himself hastened by devious paths through the wood of Warroch to his appointed interview with Hatteraick, from whom he hoped to learn at more leisure than last night's conference admitted the circumstances attending the return of the heir of Ellangowan to his native country.

With manoeuvres like those of a fox when he doubles to avoid the pack, Glossin strove to approach the place of appointment in a manner which should leave no distinct track of his course. 'Would to Heaven it would snow,' he said, looking upward, 'and hide these foot-prints. Should one of the officers light upon them, he would run the scent up like a bloodhound and surprise us. I must get down upon the sea-beach, and contrive to creep along beneath the rocks.'

And accordingly he descended from the cliffs with some difficulty, and scrambled along between the rocks and the advancing tide; now looking up to see if his motions were watched from the rocks above him, now casting a jealous glance to mark if any boat appeared upon the sea, from which his course might be discovered.

But even the feelings of selfish apprehension were for a time superseded, as Glossin passed the spot where Kennedy's body had been found. It was marked by the fragment of rock which had been precipitated from the cliff above, either with the body or after it. The mass was now encrusted with small shell-fish, and tasselled with tangle and seaweed; but still its shape and substance were different from those of the other rocks which lay scattered around. His voluntary walks, it will readily be believed, had never led to this spot; so that, finding himself now there for the first time after the terrible catastrophe, the scene at once recurred to his mind with all its accompaniments of

horror. He remembered how, like a guilty thing, gliding from the neighbouring place of concealment, he had mingled with eagerness, yet with caution, among the terrified group who surrounded the corpse, dreading lest any one should ask from whence he came. He remembered, too, with what conscious fear he had avoided gazing upon that ghastly spectacle. The wild scream of his patron, 'My bairn! my bairn!' again rang in his ears. 'Good God!' he exclaimed, 'and is all I have gained worth the agony of that moment, and the thousand anxious fears and horrors which have since embittered my life! O how I wish that I lay where that wretched man lies, and that he stood here in life and health! But these regrets are all too late.'

Stifling, therefore, his feelings, he crept forward to the cave, which was so near the spot where the body was found that the smugglers might have heard from their hiding-place the various conjectures of the bystanders concerning the fate of their victim. But nothing could be more completely concealed than the entrance to their asylum. The opening, not larger than that of a fox-earth, lay in the face of the cliff directly behind a large black rock, or rather upright stone, which served at once to conceal it from strangers and as a mark to point out its situation to those who used it as a place of retreat. The space between the stone and the cliff was exceedingly narrow, and, being heaped with sand and other rubbish, the most minute search would not have discovered the mouth of the cavern without removing those substances which the tide had drifted before it. For the purpose of further concealment, it was usual with the contraband traders who frequented this haunt, after they had entered, to stuff the mouth with withered seaweed, loosely piled together as if carried there by the waves. Dirk Hatteraick had not forgotten this precaution.

Glossin, though a bold and hardy man, felt his heart throb and his knees knock together when he prepared to enter this den of secret iniquity, in order to hold conference with a felon, whom he justly accounted one of the most desperate and depraved of men. 'But he has no interest to injure me,' was his consolatory reflection.

He examined his pocket-pistols, however, before removing the weeds and entering the cavern, which he did upon hands and knees. The passage, which at first was low and narrow, just admitting entrance to a man in a creeping posture, expanded after a few yards into a high arched vault of considerable width. The bottom, ascending gradually, was covered with the purest sand. Ere Glossin had got upon his feet, the hoarse yet suppressed voice of Hatteraick growled through the recesses of the cave:--

'Hagel and donner! be'st du?'

'Are you in the dark?'

'Dark? der deyvil! ay,' said Dirk Hatteraick; 'where should I have a glim?'

'I have brought light'; and Glossin accordingly produced a tinder-box and lighted a small lantern.

'You must kindle some fire too, for hold mich der deyvil, Ich bin ganz gefrorne!'

'It is a cold place, to be sure,' said Glossin, gathering together some decayed staves of barrels and pieces of wood, which had perhaps lain in the cavern since Hatteraick was there last.

'Cold? Snow-wasser and hagel! it's perdition; I could only keep myself alive by rambling up and down this d--d vault, and thinking about the merry rouses we have had in it.'

The flame then began to blaze brightly, and Hatteraick hung his bronzed visage and expanded his hard and sinewy hands over it, with an avidity resembling that of a famished wretch to whom food is exposed. The light showed his savage and stern features, and the smoke, which in his agony of cold he seemed to endure almost to suffocation, after circling round his head, rose to the dim and rugged roof of the cave, through which it escaped by some secret rents or clefts in the rock; the same doubtless that afforded air to the cavern when the tide was in, at which time the aperture to the sea was filled with water.

‘And now I have brought you some breakfast,’ said Glossin, producing some cold meat and a flask of spirits. The latter Hatteraick eagerly seized upon and applied to his mouth; and, after a hearty draught, he exclaimed with great rapture, ‘Das schmeckt! That is good, that warms the liver!’ Then broke into the fragment of a High-Dutch song,--

Saufen Bier und Brantewein,
Schmeissen alle die Fenstern ein;
Ich bin liederlich,
Du bist liederlich;
Sind wir nicht liederlich Leute a?

‘Well said, my hearty Captain!’ cried Glossin, endeavouring to catch the tone of revelry,--

‘Gin by pailfuls, wine in rivers,
Dash the window-glass to shivers!
For three wild lads were we, brave boys,
And three wild lads were we;
Thou on the land, and I on the sand,
And Jack on the gallows-tree!

That’s it, my bully-boy! Why, you’re alive again now! And now let us talk about our business.’

‘YOUR business, if you please,’ said Hatteraick. ‘Hagel and donner! mine was done when I got out of the bilboes.’

‘Have patience, my good friend; I’ll convince you our interests are just the same.’

Hatteraick gave a short dry cough, and Glossin, after a pause, proceeded.

‘How came you to let the boy escape?’

‘Why, fluch and blitzen! he was no charge of mine. Lieutenant Brown gave him to his cousin that’s in the Middleburgh house of Vanbeest and Vanbruggen, and told him some goose’s gazette about his being taken in a skirmish with the land-sharks; he gave him for a footboy. Me let him escape! the bastard kinchin should have walked the plank ere I troubled myself about him.’

‘Well, and was he bred a foot-boy then?’

‘Nein, nein; the kinchin got about the old man’s heart, and he gave him his own name, and bred him up in the office, and then sent him to India; I believe he would have packed him back here, but his nephew told him it would do up the free trade for many a day if the youngster got back to Scotland.’

‘Do you think the younker knows much of his own origin now?’

‘Deyvil!’ replied Hatteraick, ‘how should I tell what he knows now? But he remembered something of it long. When he was but ten years old he persuaded another Satan’s limb of an English bastard like himself to steal my lugger’s khan--boat--what do you call it? to return to his country, as he called it; fire him! Before we could overtake them they had the skiff out of channel as far as the Deurloo; the boat might have been lost.’

‘I wish to Heaven she had, with him in her!’ ejaculated Glossin.

‘Why, I was so angry myself that, sapperment! I did give him a tip over the side; but split him! the comical little devil swam like a duck; so I made him swim astern for a mile to teach him manners, and then took him in when he was sinking. By the knocking Nicholas I he’ll plague you, now he’s come over the herring-pond! When he was so high he had the spirit of thunder and lightning.’

‘How did he get back from India?’

‘Why, how should I know? The house there was done up; and that gave us a shake at Middleburgh, I think; so they sent me again to see what could be done among my old acquaintances here, for we held old stories were done away and forgotten. So I had got a pretty trade on foot within the last two trips; but that stupid hounds-foot schelm, Brown, has knocked it on the head again, I suppose, with getting himself shot by the colonel-man.’

‘Why were not you with them?’

‘Why, you see, sapperment! I fear nothing; but it was too far within land, and I might have been scented.’

‘True. But to return to this youngster--’

‘Ay, ay, donner and blitzen! HE’S your affair,’ said the Captain.

‘How do you really know that he is in this country?’

‘Why, Gabriel saw him up among the hills.’

‘Gabriel! who is he?’

‘A fellow from the gipsies, that, about eighteen years since, was pressed on board that d--d fellow Pritchard’s sloop-of-war. It was he came off and gave us warning that the Shark was coming round upon us the day Kennedy was done; and he told us how Kennedy had given the information. The gipsies and Kennedy had some quarrel besides. This Gab went to the East Indies in the same ship with your younker, and, sapperment! knew him well, though the other did not remember him. Gab kept out of his eye though, as he had served the States against England, and was a deserter to boot; and he sent us word directly, that we might know of his being here, though it does not concern us a rope’s end.’

‘So, then, really, and in sober earnest, he is actually in this country, Hatteraick, between friend and friend?’ asked Glossin, seriously.

‘Wetter and donner, yaw! What do you take me for?’

‘For a bloodthirsty, fearless miscreant!’ thought Glossin internally; but said aloud, ‘And which of your people was it that shot young Hazlewood?’

‘Sturmwetter!’ said the Captain, ‘do ye think we were mad? none of US, man. Gott! the country was too hot for the trade already with that d-d frolic of Brown’s, attacking what you call Woodbourne House.’

‘Why, I am told,’ said Glossin, ‘it was Brown who shot Hazlewood?’

‘Not our lieutenant, I promise you; for he was laid six feet deep at Derncleugh the day before the thing happened. Tausend deyvils, man! do ye think that he could rise out of the earth to shoot another man?’

A light here began to break upon Glossin's confusion of ideas. 'Did you not say that the younker, as you call him, goes by the name of Brown?'

'Of Brown? yaw; Vanbeest Brown. Old Vanbeest Brown, of our Vanbeest and Vanbruggen, gave him his own name, he did.'

'Then,' said Glossin, rubbing his hands, 'it is he, by Heaven, who has committed this crime!'

'And what have we to do with that?' demanded Hatteraick.

Glossin paused, and, fertile in expedients, hastily ran over his project in his own mind, and then drew near the smuggler with a confidential air. 'You know, my dear Hatteraick, it is our principal business to get rid of this young man?'

'Umph!' answered Dirk Hatteraick.

'Not,' continued Glossin--'not that I would wish any personal harm to him--if--if--if we can do without. Now, he is liable to be seized upon by justice, both as bearing the same name with your lieutenant, who was engaged in that affair at Woodbourne, and for firing at young Hazlewood with intent to kill or wound.'

'Ay, ay,' said Dirk Hatteraick; 'but what good will that do you? He'll be loose again as soon as he shows himself to carry other colours.'

'True, my dear Dirk; well noticed, my friend Hatteraick! But there is ground enough for a temporary imprisonment till he fetch his proofs from England or elsewhere, my good friend. I understand the law, Captain Hatteraick, and I'll take it upon me, simple Gilbert Glossin of Ellangowan, justice of peace for the county of---, to refuse his bail, if he should offer the best in the country, until he is brought up for a second examination; now where d'ye think I'll incarcerate him?'

'Hagel and wetter! what do I care?'

‘Stay, my friend; you do care a great deal. Do you know your goods that were seized and carried to Woodbourne are now lying in the custom-house at Portanferry? (a small fishing-town). Now I will commit this younker--’

‘When you have caught him.’

‘Ay, ay, when I have caught him; I shall not be long about that. I will commit him to the workhouse, or bridewell, which you know is beside the custom-house.’

‘Yaw, the rasp-house; I know it very well.’

‘I will take care that the redcoats are dispersed through the country; you land at night with the crew of your lugger, receive your own goods, and carry the younker Brown with you back to Flushing. Won’t that do?’

‘Ay, carry him to Flushing,’ said the Captain, ‘or--to America?’

‘Ay, ay, my friend.’

‘Or--to Jericho?’

‘Psha! Wherever you have a mind.’

‘Ay, or--pitch him overboard?’

‘Nay, I advise no violence.’

‘Nein, nein; you leave that to me. Sturmwetter! I know you of old. But, hark ye, what am I, Dirk Hatteraick, to be the better of this?’

‘Why, is it not your interest as well as mine?’ said Glossin; ‘besides, I set you free this morning.’

‘YOU set me free! Donner and deyvil! I set myself free. Besides, it was all in the way of your profession, and happened a long time ago, ha, ha, ha!’

‘Pshaw! pshaw! don’t let us jest; I am not against making a handsome compliment; but it’s your affair as well as mine.’

‘What do you talk of my affair? is it not you that keep the younker’s whole estate from him? Dirk Hatteraick never touched a stiver of his rents.’

‘Hush! hush! I tell you it shall be a joint business.’

‘Why, will ye give me half the kitt?’

‘What, half the estate? D’ye mean we should set up house together at Ellangowan, and take the barony ridge about?’

‘Sturmwetter, no! but you might give me half the value--half the gelt. Live with you? nein. I would have a lusthaus of mine own on the Middleburgh dyke, and a blumengarten like a burgomaster’s.’

‘Ay, and a wooden lion at the door, and a painted sentinel in the garden, with a pipe in his mouth! But, hark ye, Hatteraick, what will all the tulips and flower-gardens and pleasure-houses in the Netherlands do for you if you are hanged here in Scotland?’

Hatteraick’s countenance fell. ‘Der deyvil! hanged!’

‘Ay, hanged, mein Herr Captain. The devil can scarce save Dirk Hatteraick from being hanged for a murderer and kidnapper if the younker of Ellangowan should settle in this country, and if the gallant Captain chances to be caught here reestablishing his fair trade! And I won’t say but, as peace is now so much talked of, their High Mightinesses may not hand him over to oblige their new allies, even if he remained in faderland.’

‘Poz hagel, blitzen, and donner! I--I doubt you say true.’

‘Not,’ said Glossin, perceiving he had made the desired impression, ‘not that I am against being civil’; and he slid into Hatteraick’s passive hand a bank-note of some value.

‘Is this all?’ said the smuggler. ‘You had the price of half a cargo for winking at our job, and made us do your business too.’

‘But, my good friend, you forget: In this case you will recover all your own goods.’

‘Ay, at the risk of all our own necks; we could do that without you.’

‘I doubt that, Captain Hatteraick,’ said Glossin, drily;’ because you would probably find a-’dozen’redcoats at the custom-house, whom it must be my business, if we agree about this matter, to have removed. Come, come, I will be as liberal as I can, but you should have a conscience.’

‘Now strafe mich der deyfel! this provokes me more than all the rest! You rob and you murder, and you want me to rob and murder, and play the silver-cooper, or kidnapper, as you call it, a dozen times over, and then, hagel and windsturm! you speak to me of conscience! Can you think of no fairer way of getting rid of this unlucky lad?’

‘No, mein Herr; but as I commit him to your charge-’

‘To my charge! to the charge of steel and gunpowder! and--well, if it must be, it must; but you have a tolerably good guess what’s like to come of it.’

‘O, my dear friend, I trust no degree of severity will be necessary,’ replied Glossin.

‘Severity!’ said the fellow, with a kind of groan, ‘I wish you had had my dreams when I first came to this dog-hole, and tried to sleep among the dry seaweed. First, there was that d-d fellow there, with his broken back, sprawling as he did when I hurled the rock over a-top on him, ha, ha! You would have sworn he was lying on the floor where you stand, wriggling like a crushed frog, and then--’

‘Nay, my friend,’ said Glossin, interrupting him, ‘what signifies going over this nonsense? If you are turned chicken-hearted, why, the game’s up, that’s all; the game’s up with us both.’

‘Chicken-hearted? no. I have not lived so long upon the account to start at last, neither for devil nor Dutchman.’

‘Well, then, take another schnaps; the cold’s at your heart still. And now tell me, are any of your old crew with you?’

‘Nein; all dead, shot, hanged, drowned, and damned. Brown was the last. All dead but Gipsy Gab, and he would go off the country for a spill of money; or he’ll be quiet for his own sake; or old Meg, his aunt, will keep him quiet for hers.’

‘Which Meg?’

‘Meg Merrilies, the old devil’s limb of a gipsy witch.’

‘Is she still alive?’

‘Yaw.’

‘And in this country?’

‘And in this country. She was at the Kaim of Derncleugh, at Vanbeest Brown’s last wake, as they call it, the other night, with two of my people, and some of her own blasted gipsies.’

‘That’s another breaker ahead, Captain! Will she not squeak, think ye?’

‘Not she! she won’t start; she swore by the salmon, [Footnote: The great and invoidable oath of the strolling tribes.] if we did the kinchin no harm, she would never tell how the gauger got it. Why, man, though I gave her a wipe with my hanger in the heat of the matter, and cut her arm, and though she was so long after in trouble about it up at your borough-town there, der deyvil! old Meg was as true as steel.’

‘Why, that’s true, as you say,’ replied Glossin. ‘And yet if she could be carried over to Zealand, or Hamburgh, or--or--anywhere else, you know, it were as well.’

Hatteraick jumped upright upon his feet, and looked at Glossin from head to heel. ‘I don’t see the goat’s foot,’ he said, ‘and yet he must be the very deyvil! But Meg Merrilies is closer yet with the kobold than you are; ay, and I had never such weather as after having drawn her blood. Nein, nein, I ‘ll meddle with her no more; she’s a witch of the fiend, a real deyvil’s kind,--but that’s her affair. Donner and wetter! I’ll neither make nor meddle; that’s her work. But for the rest--why, if I thought the trade would not suffer, I would soon rid you of the younker, if you send me word when he’s under embargo.’

In brief and under tones the two worthy associates concerted their enterprise, and agreed at which of his haunts Hatteraick should be heard of. The stay of his lugger on the coast was not difficult, as there were no king's vessels there at the time.

CHAPTER VI

You are one of those that will not serve God if the devil
bids you. Because we come to do you service, you think we are
ruffians.

--Othello.

When Glossin returned home he found, among other letters and papers sent to him, one of considerable importance. It was signed by Mr. Protocol, an attorney in Edinburgh, and, addressing him as the agent for Godfrey Bertram, Esq., late of Ellangowan, and his representatives, acquainted him with the sudden death of Mrs. Margaret Bertram of Singleside, requesting him to inform his clients thereof, in case they should judge it proper to have any person present for their interest at opening the repositories of the deceased. Mr. Glossin perceived at once that the letter-writer was unacquainted with the breach which had taken place between him and his late patron. The estate of the deceased lady should by rights, as he well knew, descend to Lucy Bertram; but it was a thousand to one that the caprice of the old lady might have altered its destination. After running over contingencies and probabilities in his fertile mind, to

ascertain what sort of personal advantage might accrue to him from this incident, he could not perceive any mode of availing himself of it, except in so far as it might go to assist his plan of recovering, or rather creating, a character, the want of which he had already experienced, and was likely to feel yet more deeply. ‘I must place myself,’ he thought, ‘on strong ground, that, if anything goes wrong with Dirk Hatteraick’s project, I may have prepossessions in my favour at least.’ Besides, to do Glossin justice, bad as he was, he might feel some desire to compensate to Miss Bertram in a small degree, and in a case in which his own interest did not interfere with hers, the infinite mischief which he had occasioned to her family. He therefore resolved early the next morning to ride over to Woodbourne.

It was not without hesitation that he took this step, having the natural reluctance to face Colonel Mannering which fraud and villainy have to encounter honour and probity. But he had great confidence in his own savoir faire. His talents were naturally acute, and by no means confined to the line of his profession. He had at different times resided a good deal in England, and his address was free both from country rusticity and professional pedantry; so that he had considerable powers both of address and persuasion, joined to an unshaken effrontery, which he affected to disguise under plainness of manner. Confident, therefore, in himself, he appeared at Woodbourne about ten in the morning, and was admitted as a gentleman come to wait upon Miss Bertram.

He did not announce himself until he was at the door of the breakfast-parlour, when the servant, by his desire, said aloud--’Mr. Glossin, to wait upon Miss Bertram.’ Lucy, remembering the last scene of her father’s existence, turned as pale as death, and had well-nigh fallen from her chair. Julia Mannering flew to her assistance, and they left the room together. There remained Colonel Mannering, Charles Hazlewood, with his arm in a sling, and the Dominie, whose gaunt visage and wall-eyes assumed a most hostile aspect on recognising Glossin.

That honest gentleman, though somewhat abashed by the effect of his first introduction, advanced with confidence, and hoped he did not intrude upon the ladies. Colonel Mannering, in a very upright and stately manner, observed, that he did not know to what he was to impute the honour of a visit from Mr. Glossin.

'Hem! hem! I took the liberty to wait upon Miss Bertram, Colonel Mannering, on account of a matter of business.'

'If it can be communicated to Mr. Mac-Morlan, her agent, sir, I believe it will be more agreeable to Miss Bertram.'

'I beg pardon, Colonel Mannering,' said Glossin, making a wretched attempt at an easy demeanour; 'you are a man of the world; there are some cases in which it is most prudent for all parties to treat with principals.'

'Then,' replied Mannering, with a repulsive air, 'if Mr. Glossin will take the trouble to state his object in a letter, I will answer that Miss Bertram pays proper attention to it.'

'Certainly,' stammered Glossin; 'but there are cases in which a viva voce conference--Hem! I perceive--I know--Colonel Mannering has adopted some prejudices which may make my visit appear intrusive; but I submit to his good sense, whether he ought to exclude me from a hearing without knowing the purpose of my visit, or of how much consequence it may be to the young lady whom he honours with his protection.'

'Certainly, sir, I have not the least intention to do so,' replied the Colonel. 'I will learn Miss Bertram's pleasure on the subject, and acquaint Mr. Glossin, if he can spare time to wait for her answer.' So saying, he left the room.

Glossin had still remained standing in the midst of the apartment. Colonel Mannering had made not the slightest motion to invite him to sit, and indeed had remained standing himself during their short interview. When he left the room, however, Glossin seized upon a chair, and threw himself into it with an air between embarrassment and

effrontery. He felt the silence of his companions disconcerting and oppressive, and resolved to interrupt it.

‘A fine day, Mr. Sampson.’

The Dominie answered with something between an acquiescent grunt and an indignant groan.

‘You never come down to see your old acquaintance on the Ellangowan property, Mr. Sampson. You would find most of the old stagers still stationary there. I have too much respect for the late family to disturb old residenters, even under pretence of improvement. Besides, it’s not my way, I don’t like it; I believe, Mr. Sampson, Scripture particularly condemns those who oppress the poor, and remove landmarks.’

‘Or who devour the substance of orphans,’ subjoined the Dominie. ‘Anathema, Maranatha!’ So saying, he rose, shouldered the folio which he had been perusing, faced to the right about, and marched out of the room with the strides of a grenadier.

Mr. Glossin, no way disconcerted, or at least feeling it necessary not to appear so, turned to young Hazlewood, who was apparently busy with the newspaper.--’ Any news, sir?’ Hazlewood raised his eyes, looked at him, and pushed the paper towards him, as if to a stranger in a coffee-house, then rose, and was about to leave the room. ‘I beg pardon, Mr. Hazlewood, but I can’t help wishing you joy of getting so easily over that infernal accident.’ This was answered by a sort of inclination of the head, as slight and stiff as could well be imagined. Yet it encouraged our man of law to proceed.--’ I can promise you, Mr. Hazlewood, few people have taken the interest in that matter which I have done, both for the sake of the country and on account of my particular respect for your family, which has so high a stake in it; indeed, so very high a stake that, as Mr. Featherhead is ‘turning old now, and as there’s a talk, since his last stroke, of his taking the Chiltern Hundreds, it might be worth your while to look about you. I speak as a friend, Mr. Hazlewood, and as one who understands the roll; and if in going over it together--’

‘I beg pardon, sir, but I have no views in which your assistance could be useful.’

‘O, very well, perhaps you are right; it’s quite time enough, and I love to see a young gentleman cautious. But I was talking of your wound. I think I have got a clue to that business--I think I have, and if I don’t bring the fellow to condign punishment--!’

‘I beg your pardon, sir, once more; but your zeal outruns my wishes. I have every reason to think the wound was accidental; certainly it was not premeditated. Against ingratitude and premeditated treachery, should you find any one guilty of them, my resentment will be as warm as your own.’ This was Hazlewood’s answer.

‘Another rebuff,’ thought Glossin; ‘I must try him upon the other tack.’ ‘Right, sir; very nobly said! I would have no more mercy on an ungrateful man than I would on a woodcock. And now we talk of sport (this was a sort of diverting of the conversation which Glossin had learned from his former patron), I see you often carry a gun, and I hope you will be soon able to take the field again. I observe you confine yourself always to your own side of the Hazleshaws burn. I hope, my dear sir, you will make no scruple of following your game to the Ellangowan bank; I believe it is rather the best exposure of the two for woodcocks, although both are capital.’

As this offer only excited a cold and constrained bow, Glossin was obliged to remain silent, and was presently afterwards somewhat relieved by the entrance of Colonel Mannering.

‘I have detained you some time, I fear, sir,’ said he, addressing Glossin; ‘I wished to prevail upon Miss Bertram to see you, as, in my opinion, her objections ought to give way to the necessity of hearing in her own person what is stated to be of importance that she should know. But I find that circumstances of recent occurrence, and not easily to be forgotten, have rendered her so utterly repugnant to a personal interview with Mr. Glossin that it would be cruelty to insist upon it; and she has deputed me to receive his commands, or proposal, or, in short, whatever he may wish to say to her.’

zaid n. adwan

‘Hem, hem! I am sorry, sir--I am very sorry, Colonel Mannering, that Miss Bertram should suppose--that any prejudice, in short--or idea that anything on my part--’

‘Sir,’ said the inflexible Colonel, ‘where no accusation is made, excuses or explanations are unnecessary. Have you any objection to communicate to me, as Miss Bertram’s temporary guardian, the circumstances which you conceive to interest her?’

‘None, Colonel Mannering; she could not choose a more respectable friend, or one with whom I, in particular, would more anxiously wish to communicate frankly.’

‘Have the goodness to speak to the point, sir, if you please.’

‘Why, sir, it is not so easy all at once--but Mr. Hazlewood need not leave the room,--I mean so well to Miss Bertram that I could wish the whole world to hear my part of the conference.’

‘My friend Mr. Charles Hazlewood will not probably be anxious, Mr. Glossin, to listen to what cannot concern him. And now, when he has left us alone, let me pray you to be short and explicit in what you have to say. I am a soldier, sir, somewhat impatient of forms and introductions.’ So saying, he drew himself up in his chair and waited for Mr. Glossin’s communication.

‘Be pleased to look at that letter,’ said Glossin, putting Protocol’s epistle into Mannering’s hand, as the shortest way of stating his business.

The Colonel read it and returned it, after pencilling the name of the writer in his memorandum-book. ‘This, sir, does not seem to require much discussion. I will see that Miss Bertram’s interest is attended to.’

‘But, sir,--but, Colonel Mannering,’ added Glossin, ‘there is another matter which no one can explain but myself. This lady--this Mrs. Margaret Bertram, to my certain knowledge, made a general settlement of her affairs in Miss Lucy Bertram’s favour while she lived with my old friend Mr. Bertram at Ellangowan. The Dominie--that was the name by which my deceased friend always called that very respectable man Mr. Sampson--he and I witnessed the deed. And she had full power at that time to make

such a settlement, for she was in fee of the estate of Singleside even then, although it was life rented by an elder sister. It was a whimsical settlement of old Singleside's, sir; he pitted the two cats his daughters against each other, ha, ha, ha!'

'Well, sir,' said Mannering, without the slightest smile of sympathy, 'but to the purpose. You say that this lady had power to settle her estate on Miss Bertram, and that she did so?'

'Even so, Colonel,' replied Glossin. 'I think I should understand the law, I have followed it for many years; and, though I have given it up to retire upon a handsome competence, I did not throw away that knowledge which is pronounced better than house and land, and which I take to be the knowledge of the law, since, as our common rhyme has it,

'Tis most excellent,
To win the land that's gone and spent.

No, no, I love the smack of the whip: I have a little, a very little law yet, at the service of my friends.'

Glossin ran on in this manner, thinking he had made a favourable impression on Mannering. The Colonel, indeed, reflected that this might be a most important crisis for Miss Bertram's interest, and resolved that his strong inclination to throw Glossin out at window or at door should not interfere with it. He put a strong curb on his temper, and resolved to listen with patience at least, if without complacency. He therefore let Mr. Glossin get to the end of his self-congratulations, and then asked him if he knew where the deed was.

'I know--that is, I think--I believe I can recover it. In such cases custodiers have sometimes made a charge.'

'We won't differ as to that, sir,' said the Colonel, taking out his pocket-book.

'But, my dear sir, you take me so very short. I said SOME PERSONS MIGHT make such a claim, I mean for payment of the expenses of the deed, trouble in the affair, etc.

But I, for my own part, only wish Miss Bertram and her friends to be satisfied that I am acting towards her with honour. There's the paper, sir! It would have been a satisfaction to me to have delivered it into Miss Bertram's own hands, and to have wished her joy of the prospects which it opens. But, since her prejudices on the subject are invincible, it only remains for me to transmit her my best wishes through you, Colonel Mannering, and to express that I shall willingly give my testimony in support of that deed when I shall be called upon. I have the honour to wish you a good morning, sir.'

This parting speech was so well got up, and had so much the tone of conscious integrity unjustly suspected, that even Colonel Mannering was staggered in his bad opinion. He followed him two or three steps, and took leave of him with more politeness (though still cold and formal) than he had paid during his visit. Glossin left the house half pleased with the impression he had made, half mortified by the stern caution and proud reluctance with which he had been received. 'Colonel Mannering might have had more politeness,' he said to himself. 'It is not every man that can bring a good chance of 400 Pounds a year to a penniless girl. Singleside must be up to 400 Pounds a year now; there's Reilageganbeg, Gillifidget, Loverless, Liealone, and the Spinster's Knowe--good 400 Pounds a year. Some people might have made their own of it in my place; and yet, to own the truth, after much consideration, I don't see how that is possible.'

Glossin was no sooner mounted and gone than the Colonel despatched a groom for Mr. Mac-Morlan, and, putting the deed into his hand, requested to know if it was likely to be available to his friend Lucy Bertram. Mac-Morlan perused it with eyes that sparkled with delight, snapped his fingers repeatedly, and at length exclaimed, 'Available! it's as tight as a glove; naebody could make better wark than Glossin, when he didna let down a steek on purpose. But (his countenance falling) the auld b---, that I should say so, might alter at pleasure!'

'Ah! And how shall we know whether she has done so?'

‘Somebody must attend on Miss Bertram’s part when the repositories of the deceased are opened.’

‘Can you go?’ said the Colonel.

‘I fear I cannot,’ replied Mac-Morlan; ‘I must attend a jury trial before our court.’

‘Then I will go myself,’ said the Colonel; ‘I’ll set out to-morrow. Sampson shall go with me; he is witness to this settlement. But I shall want a legal adviser.’

‘The gentleman that was lately sheriff of this county is high in reputation as a barrister; I will give you a card of introduction to him.’

‘What I like about you, Mr. Mac-Morlan,’ said the Colonel, ‘is that you always come straight to the point. Let me have it instantly. Shall we tell Miss Lucy her chance of becoming an heiress?’

‘Surely, because you must have some powers from her, which I will instantly draw out. Besides, I will be caution for her prudence, and that she will consider it only in the light of a chance.’

Mac-Morlan judged well. It could not be discerned from Miss Bertram’s manner that she founded exulting hopes upon the prospect thus unexpectedly opening before her. She did, indeed, in the course of the evening ask Mr. Mac-Morlan, as if by accident, what might be the annual income of the Hazlewood property; but shall we therefore aver for certain that she was considering whether an heiress of four hundred a year might be a suitable match for the young Laird?

CHAPTER VII

Give me a cup of sack, to make mine eyes look red. For I must
speak in passion, and I will do it in King Cambyses' vein.

--Henry IV, part I.

Mannering, with Sampson for his companion, lost no time in his journey to Edinburgh. They travelled in the Colonel's post-chariot, who, knowing his companion's habits of abstraction, did not choose to lose him out of his own sight, far less to trust him on horseback, where, in all probability, a knavish stable-boy might with little address have contrived to mount him with his face to the tail. Accordingly, with the aid of his valet, who attended on horseback, he contrived to bring Mr. Sampson safe to an inn in Edinburgh--for hotels in those days there were none--without any other accident than arose from his straying twice upon the road. On one occasion he was recovered by Barnes, who understood his humour, when, after engaging in close colloquy with the schoolmaster of Moffat respecting a disputed quantity in Horace's 7th Ode, Book II, the dispute led on to another controversy concerning the exact meaning of the word malobathro in that lyric effusion. His second escapade was made for the purpose of visiting the field of Rullion Green, which was dear to his Presbyterian predilections. Having got out of the carriage for an instant, he saw the sepulchral monument of the slain at the distance of about a mile, and was arrested by Barnes in his progress up the Pentland Hills, having on both occasions forgot his friend, patron, and fellow-traveller as completely as if he had been in the East Indies. On being reminded that Colonel Mannering was waiting for him, he uttered his usual ejaculation of 'Prodigious! I was oblivious,' and then strode back to his post. Barnes was surprised at his master's patience on both occasions, knowing by experience how little he brooked neglect or delay; but the Dominie was in every respect a privileged person. His patron and he were never for a moment in each other's way, and it seemed obvious that they were formed

to be companions through life. If Mannering wanted a particular book, the Dominie could bring it; if he wished to have accounts summed up or checked, his assistance was equally ready; if he desired to recall a particular passage in the classics, he could have recourse to the Dominie as to a dictionary; and all the while this walking statue was neither presuming when noticed nor sulky when left to himself. To a proud, shy, reserved man, and such in many respects was Mannering, this sort of living catalogue and animated automaton had all the advantages of a literary dumb-waiter.

As soon as they arrived in Edinburgh, and were established at the George Inn, near Bristo Port, then kept by old Cockburn (I love to be particular), the Colonel desired the waiter to procure him a guide to Mr. Pleydell's, the advocate, for whom he had a letter of introduction from Mr. Mac-Morlan. He then commanded Barnes to have an eye to the Dominie, and walked forth with a chairman, who was to usher him to the man of law.

The period was near the end of the American war. The desire of room, of air, and of decent accommodation had not as yet made very much progress in the capital of Scotland. Some efforts had been made on the south side of the town towards building houses WITHIN THEMSELVES, as they are emphatically termed; and the New Town on the north, since so much extended, was then just commenced. But the great bulk of the better classes, and particularly those connected with the law, still lived in flats or dungeons of the Old Town. The manners also of some of the veterans of the law had not admitted innovation. One or two eminent lawyers still saw their clients in taverns, as was the general custom fifty years before; and although their habits were already considered as old-fashioned by the younger barristers, yet the custom of mixing wine and revelry with serious business was still maintained by those senior counsellors who loved the old road, either because it was such or because they had got too well used to it to travel any other. Among those praisers of the past time, who with ostentatious

obstinacy affected the manners of a former generation, was this same Paulus Pleydell, Esq., otherwise a good scholar, an excellent lawyer, and a worthy man.

Under the guidance of his trusty attendant, Colonel Mannering, after threading a dark lane or two, reached the High Street, then clanging with the voices of oyster-women and the bells of pye-men; for it had, as his guide assured him, just' chappit eight upon the Tron.' It was long since Mannering had been in the street of a crowded metropolis, which, with its noise and clamour, its sounds of trade, of revelry, and of license, its variety of lights, and the eternally changing bustle of its hundred groups, offers, by night especially, a spectacle which, though composed of the most vulgar materials when they are separately considered, has, when they are combined, a striking and powerful effect on the imagination. The extraordinary height of the houses was marked by lights, which, glimmering irregularly along their front, ascended so high among the attics that they seemed at length to twinkle in the middle sky. This coup d'aeil, which still subsists in a certain degree, was then more imposing, owing to the uninterrupted range of buildings on each side, which, broken only at the space where the North Bridge joins the main street, formed a superb and uniform place, extending from the front of the Lucken-booths to the head of the Canongate, and corresponding in breadth and length to the uncommon height of the buildings on either side.

Mannering had not much time to look and to admire. His conductor hurried him across this striking scene, and suddenly dived with him into a very steep paved lane. Turning to the right, they entered a scale staircase, as it is called, the state of which, so far as it could be judged of by one of his senses, annoyed Mannering's delicacy not a little. When they had ascended cautiously to a considerable height, they heard a heavy rap at a door, still two stories above them. The door opened, and immediately ensued the sharp and worrying bark of a dog, the squalling of a woman, the screams of an assaulted cat, and the hoarse voice of a man, who cried in a most imperative tone, 'Will ye, Mustard? Will ye? down, sir, down!'

‘Lord preserve us!’ said the female voice, ‘an he had worried our cat, Mr. Pleydell would ne’er hae forgi’en me!’

‘Aweel, my doo, the cat’s no a prin the waur. So he’s no in, ye say?’

‘Na, Mr. Pleydell’s ne’er in the house on Saturday at e’en,’ answered the female voice.

‘And the morn’s Sabbath too,’ said the querist. ‘I dinna ken what will be done.’

By this time Mannering appeared, and found a tall, strong countryman, clad in a coat of pepper-and-salt-coloured mixture, with huge metal buttons, a glazed hat and boots, and a large horsewhip beneath his arm, in colloquy with a slipshod damsel, who had in one hand the lock of the door, and in the other a pail of whiting, or camstane, as it is called, mixed with water--a circumstance which indicates Saturday night in Edinburgh.

‘So Mr. Pleydell is not at home, my good girl?’ said Mannering.

‘Ay, sir, he’s at hame, but he’s no in the house; he’s aye out on Saturday at e’en.’

‘But, my good girl, I am a stranger, and my business express. Will you tell me where I can find him?’

‘His honour,’ said the chairman, ‘will be at Clerihugh’s about this time. Hersell could hae tell’d ye that, but she thought ye wanted to see his house.’

‘Well, then, show me to this tavern. I suppose he will see me, as I come on business of some consequence?’

‘I dinna ken, sir,’ said the girl; ‘he disna like to be disturbed on Saturdays wi’ business; but he’s aye civil to strangers.’

‘I’ll gang to the tavern too,’ said our friend Dinmont, ‘for I am a stranger also, and on business e’en sic like.’

‘Na,’ said the handmaiden, ‘an he see the gentleman, he’ll see the simple body too; but, Lord’s sake, dinna say it was me sent ye there!’

‘Atweel, I am a simple body, that’s true, hinny, but I am no come to steal ony o’ his skeel for naething,’ said the farmer in his honest pride, and strutted away downstairs, followed by Mannering and the cadie. Mannering could not help admiring the determined stride with which the stranger who preceded them divided the press, shouldering from him, by the mere weight and impetus of his motion, both drunk and sober passengers. ‘He’ll be a Teviotdale tup tat ane,’ said the chairman, ‘tat’s for keeping ta crown o’ ta causeway tat gate; he ‘ll no gang far or he ‘ll get somebody to bell ta cat wi’ him.’

His shrewd augury, however, was not fulfilled. Those who recoiled from the colossal weight of Dinmont, on looking up at his size and strength, apparently judged him too heavy metal to be rashly encountered, and suffered him to pursue his course unchallenged. Following in the wake of this first-rate, Mannering proceeded till the farmer made a pause, and, looking back to the chairman, said, ‘I’m thinking this will be the close, friend.’

‘Ay, ay,’ replied Donald, ‘tat’s ta close.’

Dinmont descended confidently, then turned into a dark alley, then up a dark stair, and then into an open door. While he was whistling shrilly for the waiter, as if he had been one of his collie dogs, Mannering looked round him, and could hardly conceive how a gentleman of a liberal profession and good society should choose such a scene for social indulgence. Besides the miserable entrance, the house itself seemed paltry and half ruinous. The passage in which they stood had a window to the close, which admitted a little light during the daytime, and a villainous compound of smells at all times, but more especially towards evening. Corresponding to this window was a borrowed light on the other side of the passage, looking into the kitchen, which had no direct communication with the free air, but received in the daytime, at second hand, such straggling and obscure light as found its way from the lane through the window opposite. At present the interior of the kitchen was visible by its own huge fires--a sort

of Pandemonium, where men and women, half undressed, were busied in baking, broiling, roasting oysters, and preparing devils on the gridiron; the mistress of the place, with her shoes slipshod, and her hair straggling like that of Megaera from under a round-eared cap, toiling, scolding, receiving orders, giving them, and obeying them all at once, seemed the presiding enchantress of that gloomy and fiery region.

ENLARGE

Loud and repeated bursts of laughter from different quarters of the house proved that her labours were acceptable, and not unrewarded by a generous public. With some difficulty a waiter was prevailed upon to show Colonel Mannering and Dinmont the room where their friend learned in the law held his hebdomadal carousals. The scene which it exhibited, and particularly the attitude of the counsellor himself, the principal figure therein, struck his two clients with amazement.

Mr. Pleydell was a lively, sharp-looking gentleman, with a professional shrewdness in his eye, and, generally speaking, a professional formality in his manners. But this, like his three-tailed wig and black coat, he could slip off on a Saturday evening, when surrounded by a party of jolly companions, and disposed for what he called his altitudes. On the present occasion the revel had lasted since four o'clock, and at length, under the direction of a venerable compotator, who had shared the sports and festivity of three generations, the frolicsome company had begun to practise the ancient and now forgotten pastime of HIGH JINKS. This game was played in several different ways. Most frequently the dice were thrown by the company, and those upon whom the lot fell were obliged to assume and maintain for a time a certain fictitious character, or to repeat a certain number of fescennine verses in a particular order. If they departed from the characters assigned, or if their memory proved treacherous in the repetition, they incurred forfeits, which were either compounded for by swallowing an additional bumper or by paying a small sum towards the reckoning. At this sport the jovial company were closely engaged when Mannering entered the room.

Mr. Counsellor Pleydell, such as we have described him, was enthroned as a monarch in an elbow-chair placed on the dining-table, his scratch wig on one side, his head crowned with a bottle-slider, his eye leering with an expression betwixt fun and the

effects of wine, while his court around him resounded with such crambo scraps of verse as these:--

Where is Gerunto now? and what's become of him? Gerunto's drowned because he could not swim, etc., etc.

Such, O Themis, were anciently the sports of thy Scottish children! Dinmont was first in the room. He stood aghast a moment, and then exclaimed, 'It's him, sure enough. Deil o' the like o' that ever I saw!'

At the sound of 'Mr. Dinmont and Colonel Mannering wanting to speak to you, sir,' Pleydell turned his head, and blushed a little when he saw the very genteel figure of the English stranger. He was, however, of the opinion of Falstaff, 'Out, ye villains, play out the play!' wisely judging it the better way to appear totally unconcerned. 'Where be our guards?' exclaimed this second Justinian; 'see ye not a stranger knight from foreign parts arrived at this our court of Holyrood, with our bold yeoman Andrew Dinmont, who has succeeded to the keeping of our royal flocks within the forest of Jedwood, where, thanks to our royal care in the administration of justice, they feed as safe as if they were within the bounds of Fife? Where be our heralds, our pursuivants, our Lyon, our Marchmount, our Carrick, and our Snowdown? Let the strangers be placed at our board, and regaled as beseemeth their quality and this our high holiday; to-morrow we will hear their tidings.'

'So please you, my liege, to-morrow's Sunday,' said one of the company.

'Sunday, is it? then we will give no offence to the assembly of the kirk; on Monday shall be their audience.'

Mannering, who had stood at first uncertain whether to advance or retreat, now resolved to enter for the moment into the whim of the scene, though internally fretting at Mac-Morlan for sending him to consult with a crack-brained humourist. He therefore advanced with three profound congees, and craved permission to lay his credentials at the feet of the Scottish monarch, in order to be perused at his best leisure. The gravity

with which he accommodated himself to the humour of the moment, and the deep and humble inclination with which he at first declined, and then accepted, a seat presented by the master of the ceremonies, procured him three rounds of applause.

‘Deil hae me, if they arena a’ mad thegither!’ said Dinmont, occupying with less ceremony a seat at the bottom of the table; ‘or else they hae taen Yule before it comes, and are gaun a-guisarding.’

A large glass of claret was offered to Mannering, who drank it to the health of the reigning prince. ‘You are, I presume to guess,’ said the monarch, ‘that celebrated Sir Miles Mannering, so renowned in the French wars, and may well pronounce to us if the wines of Gascony lose their flavour in our more northern realm.’

Mannering, agreeably flattered by this allusion to the fame of his celebrated ancestor, replied by professing himself only a distant relation of the preux chevalier, and added, ‘that in his opinion the wine was superlatively good.’

‘It’s ower cauld for my stamach,’ said Dinmont, setting down the glass--empty however.

‘We will correct that quality,’ answered King Paulus, the first of the name; ‘we have not forgotten that the moist and humid air of our valley of Liddel inclines to stronger potations. Seneschal, let our faithful yeoman have a cup of brandy; it will be more germain to the matter.’

‘And now,’ said Mannering, ‘since we have unwarily intruded upon your majesty at a moment of mirthful retirement, be pleased to say when you will indulge a stranger with an audience on those affairs of weight which have brought him to your northern capital.’

The monarch opened Mac-Morlan’s letter, and, running it hastily over, exclaimed with his natural voice and manner, ‘Lucy Bertram of Ellangowan, poor dear lassie!’

‘A forfeit! a forfeit!’ exclaimed a dozen voices; ‘his majesty has forgot his kingly character.’

‘Not a whit! not a whit!’ replied the king; ‘I’ll be judged by this courteous knight. May not a monarch love a maid of low degree? Is not King Cophetua and the Beggar-maid an adjudged case in point?’

‘Professional! professional! another forfeit,’ exclaimed the tumultuary nobility.

‘Had not our royal predecessors,’ continued the monarch, exalting his sovereign voice to drown these disaffected clamours,--’had they not their Jean Logies, their Bessie Carmichaels, their Oliphants, their Sandilands, and their Weirs, and shall it be denied to us even to name a maiden whom we delight to honour? Nay, then, sink state and perish sovereignty! for, like a second Charles V, we will abdicate, and seek in the private shades of life those pleasures which are denied to a throne.’

So saying, he flung away his crown, and sprung from his exalted station with more agility than could have been expected from his age, ordered lights and a wash-hand basin and towel, with a cup of green tea, into another room, and made a sign to Mannering to accompany him. In less than two minutes he washed his face and hands, settled his wig in the glass, and, to Mannering’s great surprise, looked quite a different man from the childish Bacchanal he had seen a moment before.

‘There are folks,’ he said, ‘Mr. Mannering, before whom one should take care how they play the fool, because they have either too much malice or too little wit, as the poet says. The best compliment I can pay Colonel Mannering is to show I am not ashamed to expose myself before him; and truly I think it is a compliment I have not spared to-night on your good-nature. But what’s that great strong fellow wanting?’

Dinmont, who had pushed after Mannering into the room, began with a scrape with his foot and a scratch of his head in unison. ‘I am Dandie Dinmont, sir, of the Charlie’s Hope--the Liddesdale lad; ye’ll mind me? It was for me ye won yon grand plea.’

‘What plea, you loggerhead?’ said the lawyer. ‘D’ye think I can remember all the fools that come to plague me?’

‘Lord, sir, it was the grand plea about the grazing o’ the Langtae Head!’ said the farmer.

‘Well, curse thee, never mind; give me the memorial and come to me on Monday at ten,’ replied the learned counsel.

‘But, sir, I haena got ony distinct memorial.’

‘No memorial, man?’ said Pleydell.

‘Na, sir, nae memorial,’ answered Dandie; ‘for your honour said before, Mr. Pleydell, ye’ll mind, that ye liked best to hear us hill-folk tell our ain tale by word o’ mouth.’

‘Beshrew my tongue, that said so!’ answered the counsellor; ‘it will cost my ears a dinning. Well, say in two words what you’ve got to say. You see the gentleman waits.’

‘Ou, sir, if the gentleman likes he may play his ain spring first; it’s a’ ane to Dandie.’

‘Now, you looby,’ said the lawyer, ‘cannot you conceive that your business can be nothing to Colonel Mannering, but that he may not choose to have these great ears of thine regaled with his matters?’

‘Aweel, sir, just as you and he like, so ye see to my business,’ said Dandie, not a whit disconcerted by the roughness of this reception. ‘We’re at the auld wark o’ the marches again, Jock o’ Dawston Cleugh and me. Ye see we march on the tap o’ Touthop-rigg after we pass the Pomoragrains; for the Pomoragrains, and Slackenspool, and Bloodylaws, they come in there, and they belang to the Peel; but after ye pass Pomoragrains at a muckle great saucer-headed cutlugged stane that they ca’ Charlie’s Chuckie, there Dawston Cleugh and Charlie’s Hope they march. Now, I say the march rins on the tap o’ the hill where the wind and water shears; but Jock o’ Dawston Cleugh again, he contravenes that, and says that it bauds down by the auld drove-road that gaes awa by the Knot o’ the Gate ower to Keeldar Ward; and that makes an unco difference.’

‘And what difference does it make, friend?’ said Pleydell. ‘How many sheep will it feed?’

‘Ou, no mony,’ said Dandie, scratching his head; ‘it’s lying high and exposed: it may feed a hog, or aiblins twa in a good year.’

‘And for this grazing, which may be worth about five shillings a year, you are willing to throw away a hundred pound or two?’

‘Na, sir, it’s no for the value of the grass,’ replied Dinmont; ‘it’s for justice.’

‘My good friend,’ said Pleydell, ‘justice, like charity, should begin at home. Do you justice to your wife and family, and think no more about the matter.’

Dinmont still lingered, twisting his hat in his hand. ‘It’s no for that, sir; but I would like ill to be bragged wi’ him; he threeps he’ll bring a score o’ witnesses and mair, and I’m sure there’s as mony will swear for me as for him, folk that lived a’ their days upon the Charlie’s Hope, and wadna like to see the land lose its right.’

‘Zounds, man, if it be a point of honour,’ said the lawyer, ‘why don’t your landlords take it up?’

‘I dinna ken, sir (scratching his head again); there’s been nae election-dusts lately, and the lairds are unco neighbourly, and Jock and me canna get them to yoke thegither about it a’ that we can say; but if ye thought we might keep up the rent--’

‘No! no! that will never do,’ said Pleydell. ‘Confound you, why don’t you take good cudgels and settle it?’

‘Odd, sir,’ answered the farmer, ‘we tried that three times already, that’s twice on the land and ance at Lockerby Fair. But I dinna ken; we’re baith gey good at single-stick, and it couldna weel be judged.’

‘Then take broadswords, and be d--d to you, as your fathers did before you,’ said the counsel learned in the law.

‘Aweel, sir, if ye think it wadna be again the law, it’s a’ ane to Dandie.’

‘Hold! hold!’ exclaimed Pleydell, ‘we shall have another Lord Soulis’ mistake. Pr’ythee, man, comprehend me; I wish you to consider how very trifling and foolish a lawsuit you wish to engage in.’

‘Ay, sir?’ said Dandie, in a disappointed tone. ‘So ye winna take on wi’ me, I’m doubting?’

‘Me! not I. Go home, go home, take a pint and agree.’ Dandie looked but half contented, and still remained stationary. ‘Anything more, my friend?’

‘Only, sir, about the succession of this leddy that’s dead, auld Miss Margaret Bertram o’ Singleside.’

‘Ay, what about her?’ said the counsellor, rather surprised.

‘Ou, we have nae connexion at a’ wi’ the Bertrams,’ said Dandie; ‘they were grand folk by the like o’ us; but Jean Liltup, that was auld Singleside’s housekeeper, and the mother of these twa young ladies that are gane--the last o’ them’s dead at a ripe age, I trow--Jean Liltup came out o’ Liddel water, and she was as near our connexion as second cousin to my mother’s half-sister. She drew up wi’ Singleside, nae doubt, when she was his housekeeper, and it was a sair vex and grief to a’ her kith and kin. But he acknowledged a marriage, and satisfied the kirk; and now I wad ken frae you if we hae not some claim by law?’

‘Not the shadow of a claim.’

‘Aweel, we’re nae puirer,’ said Dandie; ‘but she may hae thought on us if she was minded to make a testament. Weel, sir, I’ve said my say; I’se e’en wish you good-night, and--’ putting his hand in his pocket.

‘No, no, my friend; I never take fees on Saturday nights, or without a memorial. Away with you, Dandie.’ And Dandie made his reverence and departed accordingly.

CHAPTER VIII

But this poor farce has neither truth nor art
To please the fancy or to touch the heart
Dark but not awful dismal but yet mean,
With anxious bustle moves the cumbrous scene,
Presents no objects tender or profound,
But spreads its cold unmeaning gloom around

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‘Your majesty,’ said Mannering, laughing, ‘has solemnised your abdication by an act of mercy and charity. That fellow will scarce think of going to law.’

‘O, you are quite wrong,’ said the experienced lawyer. ‘The only difference is, I have lost my client and my fee. He’ll never rest till he finds somebody to encourage him to commit the folly he has predetermined. No! no! I have only shown you another weakness of my character: I always speak truth of a Saturday night.’

‘And sometimes through the week, I should think,’ said Mannering, continuing the same tone.

‘Why, yes; as far as my vocation will permit. I am, as Hamlet says, indifferent honest, when my clients and their solicitors do not make me the medium of conveying their double-distilled lies to the bench. But oportet vivere! it is a sad thing. And now to our business. I am glad my old friend Mac-Morlan has sent you to me; he is an active, honest, and intelligent man, long sheriff-substitute of the county of--under me, and still holds the office. He knows I have a regard for that unfortunate family of Ellangowan, and for poor Lucy. I have not seen her since she was twelve years old, and she was then a sweet pretty girl, under the management of a very silly father. But my interest in her

is of an early date. I was called upon, Mr. Mannering, being then sheriff of that county, to investigate the particulars of a murder which had been committed near Ellangowan the day on which this poor child was born; and which, by a strange combination that I was unhappily not able to trace, involved the death or abstraction of her only brother, a boy of about five years old. No, Colonel, I shall never forget the misery of the house of Ellangowan that morning! the father half-distracted--the mother dead in premature travail--the helpless infant, with scarce any one to attend it, coming wawling and crying into this miserable world at such a moment of unutterable misery. We lawyers are not of iron, sir, or of brass, any more than you soldiers are of steel. We are conversant with the crimes and distresses of civil society, as you are with those that occur in a state of war, and to do our duty in either case a little apathy is perhaps necessary. But the devil take a soldier whose heart can be as hard as his sword, and his dam catch the lawyer who bronzes his bosom instead of his forehead! But come, I am losing my Saturday at e'en. Will you have the kindness to trust me with these papers which relate to Miss Bertram's business? and stay--to-morrow you'll take a bachelor's dinner with an old lawyer,--I insist upon it--at three precisely, and come an hour sooner. The old lady is to be buried on Monday; it is the orphan's cause, and we'll borrow an hour from the Sunday to talk over this business, although I fear nothing can be done if she has altered her settlement, unless perhaps it occurs within the sixty days, and then, if Miss Bertram can show that she possesses the character of heir-at-law, why--But, hark! my lieges are impatient of their interregnum. I do not invite you to rejoin us, Colonel; it would be a trespass on your complaisance, unless you had begun the day with us, and gradually glided on from wisdom to mirth, and from mirth to-to-to--extravagance. Good-night. Harry, go home with Mr. Mannering to his lodging. Colonel, I expect you at a little past two to-morrow.'

The Colonel returned to his inn, equally surprised at the childish frolics in which he had found his learned counsellor engaged, at the candour and sound sense which he had

in a moment summoned up to meet the exigencies of his profession, and at the tone of feeling which he displayed when he spoke of the friendless orphan.

In the morning, while the Colonel and his most quiet and silent of all retainers, Dominie Sampson, were finishing the breakfast which Barnes had made and poured out, after the Dominie had scalded himself in the attempt, Mr. Pleydell was suddenly ushered in. A nicely dressed bob-wig, upon every hair of which a zealous and careful barber had bestowed its proper allowance of powder; a well-brushed black suit, with very clean shoes and gold buckles and stock-buckle; a manner rather reserved and formal than intrusive, but withal showing only the formality of manner, by no means that of awkwardness; a countenance, the expressive and somewhat comic features of which were in complete repose--all showed a being perfectly different from the choice spirit of the evening before. A glance of shrewd and piercing fire in his eye was the only marked expression which recalled the man of 'Saturday at e'en.'

'I am come,' said he, with a very polite address, 'to use my regal authority in your behalf in spirituals as well as temporals; can I accompany you to the Presbyterian kirk, or Episcopal meeting-house? Tros Tyriusve, a lawyer, you know, is of both religions, or rather I should say of both forms;--or can I assist in passing the fore-noon otherwise? You'll excuse my old-fashioned importunity, I was born in a time when a Scotchman was thought inhospitable if he left a guest alone a moment, except when he slept; but I trust you will tell me at once if I intrude.'

'Not at all, my dear sir,' answered Colonel Mannering. 'I am delighted to put myself under your pilotage. I should wish much to hear some of your Scottish preachers whose talents have done such honour to your country--your Blair, your Robertson, or your Henry; and I embrace your kind offer with all my heart. Only,' drawing the lawyer a little aside, and turning his eye towards Sampson, 'my worthy friend there in the reverie is a little helpless and abstracted, and my servant, Barnes, who is his pilot in ordinary,

cannot well assist him here, especially as he has expressed his determination of going to some of your darker and more remote places of worship.'

The lawyer's eye glanced at Dominie Sampson. 'A curiosity worth preserving; and I'll find you a fit custodier. Here you, sir (to the waiter), go to Luckie Finlayson's in the Cowgate for Miles Macfin the cadie, he'll be there about this time, and tell him I wish to speak to him.'

The person wanted soon arrived. 'I will commit your friend to this man's charge,' said Pleydell; 'he'll attend him, or conduct him, wherever he chooses to go, with a happy indifference as to kirk or market, meeting or court of justice, or any other place whatever; and bring him safe home at whatever hour you appoint; so that Mr. Barnes there may be left to the freedom of his own will.'

This was easily arranged, and the Colonel committed the Dominie to the charge of this man while they should remain in Edinburgh.

'And now, sir, if you please, we shall go to the Grey-friars church, to hear our historian of Scotland, of the Continent, and of America.'

They were disappointed: he did not preach that morning. 'Never mind,' said the Counsellor, 'have a moment's patience and we shall do very well.'

The colleague of Dr. Robertson ascended the pulpit. [Footnote: This was the celebrated Doctor Erskine, a distinguished clergyman, and a most excellent man.] His external appearance was not prepossessing. A remarkably fair complexion, strangely contrasted with a black wig without a grain of powder; a narrow chest and a stooping posture; hands which, placed like props on either side of the pulpit, seemed necessary rather to support the person than to assist the gesticulation of the preacher; no gown, not even that of Geneva, a tumbled band, and a gesture which seemed scarce voluntary, were the first circumstances which struck a stranger. 'The preacher seems a very ungainly person,' whispered Mannering to his new friend.

‘Never fear, he’s the son of an excellent Scottish lawyer; [Footnote: The father of Doctor Erskine was an eminent lawyer, and his Institutes of the Law of Scotland are to this day the text-book of students of that science.] he’ll show blood, I’ll warrant him.’

The learned Counsellor predicted truly. A lecture was delivered, fraught with new, striking, and entertaining views of Scripture history, a sermon in which the Calvinism of the Kirk of Scotland was ably supported, yet made the basis of a sound system of practical morals, which should neither shelter the sinner under the cloak of speculative faith or of peculiarity of opinion, nor leave him loose to the waves of unbelief and schism. Something there was of an antiquated turn of argument and metaphor, but it only served to give zest and peculiarity to the style of elocution. The sermon was not read: a scrap of paper containing the heads of the discourse was occasionally referred to, and the enunciation, which at first seemed imperfect and embarrassed, became, as the preacher warmed in his progress, animated and distinct; and although the discourse could not be quoted as a correct specimen of pulpit eloquence, yet Mannering had seldom heard so much learning, metaphysical acuteness, and energy of argument brought into the service of Christianity.

‘Such,’ he said, going out of the church, ‘must have been the preachers to whose unfearing minds, and acute though sometimes rudely exercised talents, we owe the Reformation.’

‘And yet that reverend gentleman,’ said Pleydell, ‘whom I love for his father’s sake and his own, has nothing of the sour or pharisaical pride which has been imputed to some of the early fathers of the Calvinistic Kirk of Scotland. His colleague and he differ, and head different parties in the kirk, about particular points of church discipline; but without for a moment losing personal regard or respect for each other, or suffering malignity to interfere in an opposition steady, constant, and apparently conscientious on both sides.’

‘And you, Mr. Pleydell, what do you think of their points of difference?’

‘Why, I hope, Colonel, a plain man may go to heaven without thinking about them at all; besides, inter nos, I am a member of the suffering and Episcopal Church of Scotland--the shadow of a shade now, and fortunately so; but I love to pray where my fathers prayed before me, without thinking worse of the Presbyterian forms because they do not affect me with the same associations.’ And with this remark they parted until dinner-time.

From the awkward access to the lawyer’s mansion, Mannering was induced to form very moderate expectations of the entertainment which he was to receive. The approach looked even more dismal by daylight than on the preceding evening. The houses on each side of the lane were so close that the neighbours might have shaken hands with each other from the different sides, and occasionally the space between was traversed by wooden galleries, and thus entirely closed up. The stair, the scale-stair, was not well cleaned; and on entering the house Mannering was struck with the narrowness and meanness of the wainscotted passage. But the library, into which he was shown by an elderly, respectable-looking man-servant, was a complete contrast to these unpromising appearances. It was a well-proportioned room, hung with a portrait or two of Scottish characters of eminence, by Jamieson, the Caledonian Vandyke, and surrounded with books, the best editions of the best authors, and in particular an admirable collection of classics.

‘These,’ said Pleydell, ‘are my tools of trade. A lawyer without history or literature is a mechanic, a mere working mason; if he possesses some knowledge of these, he may venture to call himself an architect.’

But Mannering was chiefly delighted with the view from the windows, which commanded that incomparable prospect of the ground between Edinburgh and the sea--the Firth of Forth, with its islands, the embayment which is terminated by the Law of North Berwick, and the varied shores of Fife to the northward, indenting with a hilly outline the clear blue horizon.

When Mr. Pleydell had sufficiently enjoyed the surprise of his guest, he called his attention to Miss Bertram's affairs. 'I was in hopes,' he said, 'though but faint, to have discovered some means of ascertaining her indefeasible right to this property of Singleside; but my researches have been in vain. The old lady was certainly absolute fiar, and might dispose of it in full right of property. All that we have to hope is, that the devil may not have tempted her to alter this very proper settlement. You must attend the old girl's funeral to-morrow, to which you will receive an invitation, for I have acquainted her agent with your being here on Miss Bertram's part; and I will meet you afterwards at the house she inhabited, and be present to see fair play at the opening of the settlement. The old cat had a little girl, the orphan of some relation, who lived with her as a kind of slavish companion. I hope she has had the conscience to make her independent, in consideration of the peine forte et dure to which she subjected her during her lifetime.'

Three gentlemen now appeared, and were introduced to the stranger. They were men of good sense, gaiety, and general information, so that the day passed very pleasantly over; and Colonel Mannering assisted, about eight o'clock at night, in discussing the landlord's bottle, which was, of course, a magnum. Upon his return to the inn he found a card inviting him to the funeral of Miss Margaret Bertram, late of Singleside, which was to proceed from her own house to the place of interment in the Greyfriars churchyard at one o'clock afternoon.

At the appointed hour Mannering went to a small house in the suburbs to the southward of the city, where he found the place of mourning indicated, as usual in Scotland, by two rueful figures with long black cloaks, white crapes and hat-bands, holding in their hands poles, adorned with melancholy streamers of the same description. By two other mutes, who, from their visages, seemed suffering under the pressure of some strange calamity, he was ushered into the dining-parlour of the defunct, where the company were assembled for the funeral.

In Scotland the custom, now disused in England, of inviting the relations of the deceased to the interment is universally retained. On many occasions this has a singular and striking effect, but it degenerates into mere empty form and grimace in cases where the defunct has had the misfortune to live unbeloved and die unlamented. The English service for the dead, one of the most beautiful and impressive parts of the ritual of the church, would have in such cases the effect of fixing the attention, and uniting the thoughts and feelings of the audience present in an exercise of devotion so peculiarly adapted to such an occasion. But according to the Scottish custom, if there be not real feeling among the assistants, there is nothing to supply the deficiency, and exalt or rouse the attention; so that a sense of tedious form, and almost hypocritical restraint, is too apt to pervade the company assembled for the mournful solemnity. Mrs. Margaret Bertram was unluckily one of those whose good qualities had attached no general friendship. She had no near relations who might have mourned from natural affection, and therefore her funeral exhibited merely the exterior trappings of sorrow.

Mannering, therefore, stood among this lugubrious company of cousins in the third, fourth, fifth, and sixth degree, composing his countenance to the decent solemnity of all who were around him, and looking as much concerned on Mrs. Margaret Bertram's account as if the deceased lady of Singleside had been his own sister or mother. After a deep and awful pause, the company began to talk aside, under their breaths, however, and as if in the chamber of a dying person.

'Our poor friend,' said one grave gentleman, scarcely opening his mouth, for fear of deranging the necessary solemnity of his features, and sliding his whisper from between his lips, which were as little unclosed as possible--'our poor friend has died well to pass in the world.'

'Nae doubt,' answered the person addressed, with half-closed eyes; 'poor Mrs. Margaret was aye careful of the gear.'

‘Any news to-day, Colonel Mannering?’ said one of the gentlemen whom he had dined with the day before, but in a tone which might, for its impressive gravity, have communicated the death of his whole generation.

‘Nothing particular, I believe, sir,’ said Mannering, in the cadence which was, he observed, appropriated to the house of mourning.

‘I understand,’ continued the first speaker, emphatically, and with the air of one who is well informed--’I understand there IS a settlement.’

‘And what does little Jenny Gibson get?’

‘A hundred, and the auld repeater.’

‘That’s but sma’ gear, puir thing; she had a sair time o’t with the auld leddy. But it’s ill waiting for dead folk’s shoon.’

‘I am afraid,’ said the politician, who was close by Mannering, ‘we have not done with your old friend Tippoo Sahib yet, I doubt he’ll give the Company more plague; and I am told, but you’ll know for certain, that East India Stock is not rising.’

‘I trust it will, sir, soon.’

‘Mrs. Margaret,’ said another person, mingling in the conversation, ‘had some India bonds. I know that, for I drew the interest for her; it would be desirable now for the trustees and legatees to have the Colonel’s advice about the time and mode of converting them into money. For my part I think--but there’s Mr. Mortcloke to tell us they are gaun to lift.’

Mr. Mortcloke the undertaker did accordingly, with a visage of professional length and most grievous solemnity, distribute among the pall-bearers little cards, assigning their respective situations in attendance upon the coffin. As this precedence is supposed to be regulated by propinquity to the defunct, the undertaker, however skilful a master of these lugubrious ceremonies, did not escape giving some offence. To be related to Mrs. Bertram was to be of kin to the lands of Singleside, and was a propinquity of which each relative present at that moment was particularly jealous. Some murmurs there were

on the occasion, and our friend Dinmont gave more open offence, being unable either to repress his discontent or to utter it in the key properly modulated to the solemnity. 'I think ye might hae at least gi'en me a leg o' her to carry,' he exclaimed, in a voice considerably louder than propriety admitted. 'God! an it hadna been for the rigs o' land, I would hae gotten her a' to carry mysell, for as mony gentles as are here.'

A score of frowning and reproving brows were bent upon the unappalled yeoman, who, having given vent to his displeasure, stalked sturdily downstairs with the rest of the company, totally disregarding the censures of those whom his remarks had scandalised.

And then the funeral pomp set forth; saulies with their batons and gumphions of tarnished white crape, in honour of the well-preserved maiden fame of Mrs. Margaret Bertram. Six starved horses, themselves the very emblems of mortality, well cloaked and plumed, lugging along the hearse with its dismal emblazonry, crept in slow state towards the place of interment, preceded by Jamie Duff, an idiot, who, with weepers and cravat made of white paper, attended on every funeral, and followed by six mourning coaches, filled with the company. Many of these now gave more free loose to their tongues, and discussed with unrestrained earnestness the amount of the succession, and the probability of its destination. The principal expectants, however, kept a prudent silence, indeed ashamed to express hopes which might prove fallacious; and the agent or man of business, who alone knew exactly how matters stood, maintained a countenance of mysterious importance, as if determined to preserve the full interest of anxiety and suspense.

At length they arrived at the churchyard gates, and from thence, amid the gaping of two or three dozen of idle women with infants in their arms, and accompanied by some twenty children, who ran gambolling and screaming alongside of the sable procession, they finally arrived at the burial-place of the Singleside family. This was a square enclosure in the Greyfriars churchyard, guarded on one side by a veteran angel without

a nose, and having only one wing, who had the merit of having maintained his post for a century, while his comrade cherub, who had stood sentinel on the corresponding pedestal, lay a broken trunk among the hemlock, burdock, and nettles which grew in gigantic luxuriance around the walls of the mausoleum. A moss-grown and broken inscription informed the reader that in the year 1650 Captain Andrew Bertram, first of Singleside, descended of the very ancient and honourable house of Ellangowan, had caused this monument to be erected for himself and his descendants. A reasonable number of scythes and hour-glasses, and death's heads and cross-bones, garnished the following sprig of sepulchral poetry to the memory of the founder of the mausoleum:--

Nathaniel's heart, Bezaleel's hand If ever any had, These boldly do I say had he, Who lieth in this bed.

Here, then, amid the deep black fat loam into which her ancestors were now resolved, they deposited the body of Mrs. Margaret Bertram; and, like soldiers returning from a military funeral, the nearest relations who might be interested in the settlements of the lady urged the dog-cattle of the hackney coaches to all the speed of which they were capable, in order to put an end to farther suspense on that interesting topic.

zaid n. adwan

CHAPTER IX

Die and endow a college or a cat.

POPE.

There is a fable told by Lucian, that while a troop of monkeys, well drilled by an intelligent manager, were performing a tragedy with great applause, the decorum of the whole scene was at once destroyed, and the natural passions of the actors called forth into very indecent and active emulation, by a wag who threw a handful of nuts upon the stage. In like manner, the approaching crisis stirred up among the expectants feelings of a nature very different from those of which, under the superintendence of Mr. Mortcloke, they had but now been endeavouring to imitate the expression. Those eyes which were lately devoutly cast up to heaven, or with greater humility bent solemnly upon earth, were now sharply and alertly darting their glances through shuttles, and trunks, and drawers, and cabinets, and all the odd corners of an old maiden lady's repositories. Nor was their search without interest, though they did not find the will of which they were in quest.

Here was a promissory note for 20 Pounds by the minister of the nonjuring chapel, interest marked as paid to Martinmas last, carefully folded up in a new set of words to the old tune of 'Over the Water to Charlie'; there was a curious love correspondence between the deceased and a certain Lieutenant O'Kean of a marching regiment of foot; and tied up with the letters was a document which at once explained to the relatives why a connexion that boded them little good had been suddenly broken off, being the Lieutenant's bond for two hundred pounds, upon which NO interest whatever appeared to have been paid. Other bills and bonds to a larger amount, and signed by better names (I mean commercially) than those of the worthy divine and gallant soldier, also occurred in the course of their researches, besides a hoard of coins of every size and denomination, and scraps of broken gold and silver, old earrings, hinges of cracked, snuff-boxes, mountings of spectacles, etc. etc. etc. Still no will made its appearance, and Colonel Mannering began full well to hope that the settlement which he had obtained from Glossin contained the ultimate arrangement of the old lady's affairs. But his friend Pleydell, who now came into the room, cautioned him against entertaining this belief.

‘I am well acquainted with the gentleman,’ he said, ‘who is conducting the search, and I guess from his manner that he knows something more of the matter than any of us.’

Meantime, while the search proceeds, let us take a brief glance at one or two of the company who seem most interested.

Of Dinmont, who, with his large hunting-whip under his arm, stood poking his great round face over the shoulder of the homme d’affaires, it is unnecessary to say anything. That thin-looking oldish person, in a most correct and gentleman-like suit of mourning, is Mac-Casquil, formerly of Drumquag, who was ruined by having a legacy bequeathed to him of two shares in the Ayr bank. His hopes on the present occasion are founded on a very distant relationship, upon his sitting in the same pew with the deceased every Sunday, and upon his playing at cribbage with her regularly on the Saturday evenings, taking great care never to come off a winner. That other coarse-looking man, wearing his own greasy hair tied in a leathern cue more greasy still, is a tobacconist, a relation of Mrs. Bertram’s mother, who, having a good stock in trade when the colonial war broke out, trebled the price of his commodity to all the world, Mrs. Bertram alone excepted, whose tortoise-shell snuff-box was weekly filled with the best rappee at the old prices, because the maid brought it to the shop with Mrs. Bertram’s respects to her cousin Mr. Quid. That young fellow, who has not had the decency to put off his boots and buckskins, might have stood as forward as most of them in the graces of the old lady, who loved to look upon a comely young man; but it is thought he has forfeited the moment of fortune by sometimes neglecting her tea-table when solemnly invited, sometimes appearing there when he had been dining with blyther company, twice treading upon her cat’s tail, and once affronting her parrot.

To Mannering the most interesting of the group was the poor girl who had been a sort of humble companion of the deceased, as a subject upon whom she could at all times expectorate her bad humour. She was for form’s sake dragged into the room by the

deceased's favourite female attendant, where, shrinking into a>corner as soon as possible, she saw with wonder and affright the intrusive researches of the strangers amongst those recesses to which from childhood she had looked with awful veneration. This girl was regarded with an unfavourable eye by all the competitors, honest Dinmont only excepted; the rest conceived they should find in her a formidable competitor, whose claims might at least encumber and diminish their chance of succession. Yet she was the only person present who seemed really to feel sorrow for the deceased. Mrs. Bertram had been her protectress, although from selfish motives, and her capricious tyranny was forgotten at the moment, while the tears followed each other fast down the cheeks of her frightened and friendless dependent. 'There's ower muckle saut water there, Drumquag,' said the tobacconist to the ex-proprietor, 'to bode ither folk muckle gude. Folk seldom greet that gate but they ken what it's for.' Mr. Mac-Casquil only replied with a nod, feeling the propriety of asserting his superior gentry in presence of Mr. Pleydell and Colonel Mannering.

'Very queer if there suld be nae will after a', friend,' said Dinmont, who began to grow impatient, to the man of business.

'A moment's patience, if you please. She was a good and prudent woman, Mrs. Margaret Bertram--a good and prudent and well-judging woman, and knew how to choose friends and depositaries; she may have put her last will and testament, or rather her mortis causa settlement, as it relates to heritage, into the hands of some safe friend.'

'I'll bet a rump and dozen,' said Pleydell, whispering to the Colonel, 'he has got it in his own pocket.' Then addressing the man of law, 'Come, sir, we'll cut this short, if you please: here is a settlement of the estate of Singleside, executed several years ago, in favour of Miss Lucy Bertram of Ellangowan.' The company stared fearfully wild. 'You, I presume, Mr. Protocol, can inform us if there is a later deed?'

'Please to favour me, Mr. Pleydell'; and so saying, he took the deed out of the learned counsel's hand, and glanced his eye over the contents.

‘Too cool,’ said Pleydell, ‘too cool by half; he has another deed in his pocket still.’

‘Why does he not show it then, and be d-d to him!’ said the military gentleman, whose patience began to wax threadbare.

‘Why, how should I know?’ answered the barrister; ‘why does a cat not kill a mouse when she takes him? The consciousness of power and the love of teasing, I suppose. Well, Mr. Protocol, what say you to that deed?’

‘Why, Mr. Pleydell, the deed is a well-drawn deed, properly authenticated and tested in forms of the statute.’

‘But recalled or superseded by another of posterior date in your possession, eh?’ said the Counsellor.

‘Something of the sort, I confess, Mr. Pleydell,’ rejoined the man of business, producing a bundle tied with tape, and sealed at each fold and ligation with black wax. ‘That deed, Mr. Pleydell, which you produce and found upon, is dated 1st June 17--; but this (breaking the seals and unfolding the document slowly) is dated the 20th--no, I see it is the 21st--of April of this present year, being ten years posterior.’

‘Marry, hang her, brock!’ said the Counsellor, borrowing an exclamation from Sir Toby Belch; ‘just the month in which Ellangowan’s distresses became generally public. But let us hear what she has done.’

Mr. Protocol accordingly, having required silence, began to read the settlement aloud in a slow, steady, business-like tone. The group around, in whose eyes hope alternately awakened and faded, and who were straining their apprehensions to get at the drift of the testator’s meaning through the mist of technical language in which the conveyance had involved it, might have made a study for Hogarth.

The deed was of an unexpected nature. It set forth with conveying and disponing all and whole the estate and lands of Singleside and others, with the lands of Loverless, Liealone, Spinster’s Knowe, and heaven knows what beside, ‘to and in favours of (here the reader softened his voice to a gentle and modest piano) Peter Protocol, clerk to the

signet, having the fullest confidence in his capacity and integrity--these are the very words which my worthy deceased friend insisted upon my inserting--but in TRUST always (here the reader recovered his voice and style, and the visages of several of the hearers, which had attained a longitude that Mr. Mortcloke might have envied, were perceptibly shortened)--in TRUST always, and for the uses, ends, and purposes hereinafter mentioned.'

In these 'uses, ends, and purposes' lay the cream of the affair. The first was introduced by a preamble setting forth that the testatrix was lineally descended from the ancient house of Ellangowan, her respected great-grandfather, Andrew Bertram, first of Singleside, of happy memory, having been second son to Allan Bertram, fifteenth Baron of Ellangowan. It proceeded to state that Henry Bertram, son and heir of Godfrey Bertram, now of Ellangowan, had been stolen from his parents in infancy, but that she, the testatrix, WAS WELL ASSURED THAT HE WAS YET ALIVE IN FOREIGN PARTS, AND BY THE PROVIDENCE OF HEAVEN WOULD BE RESTORED TO THE POSSESSIONS OF HIS ANCESTORS, in which case the said Peter Protocol was bound and obliged, like as he bound and obliged himself, by acceptance of these presents, to denude himself of the said lands of Singleside and others, and of all the other effects thereby conveyed (excepting always a proper gratification for his own trouble), to and in favour of the said Henry Bertram, upon his return to his native country. And during the time of his residing in foreign parts, or in case of his never again returning to Scotland, Mr. Peter Protocol, the trustee, was directed to distribute the rents of the land, and interest of the other funds (deducting always a proper gratification for his trouble in the premises), in equal portions, among four charitable establishments pointed out in the will. The power of management, of letting leases, of raising and lending out money, in short, the full authority of a proprietor, was vested in this confidential trustee, and, in the event of his death, went to certain official persons named in the deed. There were only two legacies; one of a hundred pounds to a favourite waiting-maid, another of the like sum to Janet Gibson (whom the deed stated to have

been supported by the charity of the testatrix), for the purpose of binding her an apprentice to some honest trade.

A settlement in mortmain is in Scotland termed a mortification, and in one great borough (Aberdeen, if I remember rightly) there is a municipal officer who takes care of these public endowments, and is thence called the Master of Mortifications. One would almost presume that the term had its origin in the effect which such settlements usually produce upon the kinsmen of those by whom they are executed. Heavy at least was the mortification which befell the audience who, in the late Mrs. Margaret Bertram's parlour, had listened to this unexpected destination of the lands of Singleside. There was a profound silence after the deed had been read over.

Mr. Pleydell was the first to speak. He begged to look at the deed, and, having satisfied himself that it was correctly drawn and executed, he returned it without any observation, only saying aside to Mannering, 'Protocol is not worse than other people, I believe; but this old lady has determined that, if he do not turn rogue, it shall not be for want of temptation.'

'I really think,' said Mr. Mac-Casquil of Drumquag, who, having gulped down one half of his vexation, determined to give vent to the rest--'I really think this is an extraordinary case! I should like now to know from Mr. Protocol, who, being sole and unlimited trustee, must have been consulted upon this occasion--I should like, I say, to know how Mrs. Bertram could possibly believe in the existence of a boy that a' the world kens was murdered many a year since?'

'Really, sir,' said Mr. Protocol, 'I do not conceive it is possible for me to explain her motives more than she has done herself. Our excellent deceased friend was a good woman, sir--a pious woman--and might have grounds for confidence in the boy's safety which are not accessible to us, sir.'

'Hout,' said the tobacconist, 'I ken very weel what were her grounds for confidence. There's Mrs. Rebecca (the maid) sitting there has tell'd me a hundred times in my ain

shop, there was nae kenning how her leddy wad settle her affairs, for an auld gipsy witch wife at Gilsland had possessed her with a notion that the callant--Harry Bertram ca's she him?--would come alive again some day after a'. Ye'll no deny that, Mrs. Rebecca? though I dare to say ye forgot to put your mistress in mind of what ye promised to say when I gied ye mony a half-crown. But ye'll no deny what I am saying now, lass?'

'I ken naething at a' about it,' answered Rebecca, doggedly, and looking straight forward with the firm countenance of one not disposed to be compelled to remember more than was agreeable to her.

'Weel said, Rebecca! ye're satisfied wi' your ain share ony way,' rejoined the tobacconist.

The buck of the second-head, for a buck of the first-head he was not, had hitherto been slapping his boots with his switch-whip, and looking like a spoiled child that has lost its supper. His murmurs, however, were all vented inwardly, or at most in a soliloquy such as this--'I am sorry, by G-d, I ever plagued myself about her. I came here, by G-d, one night to drink tea, and I left King and the Duke's rider Will Hack. They were toasting a round of running horses; by G-d, I might have got leave to wear the jacket as well as other folk if I had carried it on with them; and she has not so much as left me that hundred!'

'We'll make the payment of the note quite agreeable,' said Mr. Protocol, who had no wish to increase at that moment the odium attached to his office. 'And now, gentlemen, I fancy we have no more to wait for here, and I shall put the settlement of my excellent and worthy friend on record to-morrow, that every gentleman may examine the contents, and have free access to take an extract; and'--he proceeded to lock up the repositories of the deceased with more speed than he had opened them--'Mrs. Rebecca, ye'll be so kind as to keep all right here until we can let the house; I had an offer from a tenant this morning, if such a thing should be, and if I was to have any management.'

Our friend Dinmont, having had his hopes as well as another, had hitherto sate sulky enough in the armchair formerly appropriated to the deceased, and in which she would have been not a little scandalised to have seen this colossal specimen of the masculine gender lolling at length. His employment had been rolling up into the form of a coiled snake the long lash of his horse-whip, and then by a jerk causing it to unroll itself into the middle of the floor. The first words he said when he had digested the shock contained a magnanimous declaration, which he probably was not conscious of having uttered aloud--'Weel, blude's thicker than water; she's welcome to the cheeses and the hams just the same.' But when the trustee had made the above-mentioned motion for the mourners to depart, and talked of the house being immediately let, honest Dinmont got upon his feet and stunned the company with this blunt question, 'And what's to come o' this poor lassie then, Jenny Gibson? Sae mony o'us as thought oursells sib to the family when the gear was parting, we may do something for her amang us surely.'

This proposal seemed to dispose most of the assembly instantly to evacuate the premises, although upon Mr. Protocol's motion they had lingered as if around the grave of their disappointed hopes. Drumquag said, or rather muttered, something of having a family of his own, and took precedence, in virtue of his gentle blood, to depart as fast as possible. The tobacconist sturdily stood forward and scouted the motion--'A little huzzie like that was weel eneugh provided for already; and Mr. Protocol at ony rate was the proper person to take direction of her, as he had charge of her legacy'; and after uttering such his opinion in a steady and decisive tone of voice, he also left the place. The buck made a stupid and brutal attempt at a jest upon Mrs. Bertram's recommendation that the poor girl should be taught some honest trade; but encountered a scowl from Colonel Mannering's darkening eye (to whom, in his ignorance of the tone of good society, he had looked for applause) that made him ache to the very backbone. He shuffled downstairs, therefore, as fast as possible.

Protocol, who was really a good sort of man, next expressed his intention to take a temporary charge of the young lady, under protest always that his so doing should be considered as merely eleemosynary; when Dinmont at length got up, and, having shaken his huge dreadnought great-coat, as a Newfoundland dog does his shaggy hide when he comes out of the water, ejaculated, 'Weel, deil hae me then, if ye hae ony fash wi' her, Mr. Protocol, if she likes to gang hame wi' me, that is. Ye see, Ailie and me we're weel to pass, and we would like the lassies to hae a wee bit mair lair than oursells, and to be neighbour-like, that wad we. And ye see Jenny canna miss but to ken manners, and the like o' reading books, and sewing seams, having lived sae lang wi' a grand lady like Lady Singleside; or, if she disna ken ony thing about it, I'm jealous that our bairns will like her a' the better. And I'll take care o' the bits o' claes, and what spending siller she maun hae, so the hundred pound may rin on in your hands, Mr. Protocol, and I'll be adding something till't, till she'll maybe get a Liddesdale joe that wants something to help to buy the hirsel. What d'ye say to that, hinny? I'll take out a ticket for ye in the fly to Jethart; od, but ye maun take a powny after that o'er the Limestane Rig, deil a wheeled carriage ever gaed into Liddesdale. [Footnote: See Note I.] And I'll be very glad if Mrs. Rebecca comes wi' you, hinny, and stays a month or twa while ye're stranger like.'

While Mrs. Rebecca was curtsying, and endeavouring to make the poor orphan girl curtsy instead of crying, and while Dandie, in his rough way, was encouraging them both, old Pleydell had recourse to his snuff-box. 'It's meat and drink to me now, Colonel,' he said, as he recovered himself, 'to see a clown like this. I must gratify him in his own way, must assist him to ruin himself; there's no help for it. Here, you Liddesdale--Dandie--Charlie's Hope--what do they call you?'

The farmer turned, infinitely gratified even by this sort of notice; for in his heart, next to his own landlord, he honoured a lawyer in high practice.

'So you will not be advised against trying that question about your marches?'

‘No, no, sir; naebody likes to lose their right, and to be laughed at down the haill water. But since your honour’s no agreeable, and is maybe a friend to the other side like, we maun try some other advocate.’

‘There, I told you so, Colonel Mannering! Well, sir, if you must needs be a fool, the business is to give you the luxury of a lawsuit at the least possible expense, and to bring you off conqueror if possible. Let Mr. Protocol send me your papers, and I will advise him how to conduct your cause. I don’t see, after all, why you should not have your lawsuits too, and your feuds in the Court of Session, as well as your forefathers had their manslaughters and fire-raisings.’

‘Very natural, to be sure, sir. We wad just take the auld gate as readily, if it werena for the law. And as the law binds us, the law should loose us. Besides, a man’s aye the better thought o’ in our country for having been afore the Feifteen.’

‘Excellently argued, my friend! Away with you, and send your papers to me. Come, Colonel, we have no more to do here.’

‘God, we’ll ding Jock o’ Dawston Cleugh now after a’!’ said Dinmont, slapping his thigh in great exultation.

zaid h. adwan

CHAPTER X

I am going to the parliament;
You understand this bag. If you have any business
Depending there be short, and let me hear it,
And pay your fees.

‘Shall you be able to carry this honest fellow’s cause for him?’ said Mannering.

‘Why, I don’t know; the battle is not to the strong, but he shall come off triumphant over Jock of Dawston if we can make it out. I owe him something. It is the pest of our profession that we seldom see the best side of human nature. People come to us with every selfish feeling newly pointed and grinded; they turn down the very caulkers of their animosities and prejudices, as smiths do with horses’ shoes in a white frost. Many a man has come to my garret yonder that I have at first longed to pitch out at the window, and yet at length have discovered that he was only doing as I might have done in his case, being very angry, and of course very unreasonable. I have now satisfied myself that, if our profession sees more of human folly and human roguery than others, it is because we witness them acting in that channel in which they can most freely vent themselves. In civilised society law is the chimney through which all that smoke discharges itself that used to circulate through the whole house, and put every one’s eyes out; no wonder, therefore, that the vent itself should sometimes get a little sooty. But we will take care our Liddesdale man’s cause is well conducted and well argued, so all unnecessary expense will be saved: he shall have his pine-apple at wholesale price.’

‘Will you do me the pleasure,’ said Mannering, as they parted, ‘to dine with me at my lodgings? My landlord says he has a bit of red-deer venison and some excellent wine.’

‘Venison, eh?’ answered the Counsellor alertly, but presently added--’But no! it’s impossible; and I can’t ask you home neither. Monday’s a sacred day; so’s Tuesday; and Wednesday we are to be heard in the great teind case in presence, but stay--it’s frosty weather, and if you don’t leave town, and that venison would keep till Thursday--’

‘You will dine with me that day?’

‘Under certification.’

‘Well, then, I will indulge a thought I had of spending a week here; and if the venison will not keep, why we will see what else our landlord can do for us.’

‘O, the venison will keep,’ said Pleydell; ‘and now good-bye. Look at these two or three notes, and deliver them if you like the addresses. I wrote them for you this morning. Farewell, my clerk has been waiting this hour to begin a d-d information.’ And away walked Mr. Pleydell with great activity, diving through closes and ascending covered stairs in order to attain the High Street by an access which, compared to the common route, was what the Straits of Magellan are to the more open but circuitous passage round Cape Horn.

On looking at the notes of introduction which Pleydell had thrust into his hand, Mannering was gratified with seeing that they were addressed to some of the first literary characters of Scotland. ‘To David Hume, Esq.’

To John Home, Esq.’ ‘To Dr. Ferguson.’ ‘To Dr. Black.’ ‘To Lord Kaimes.’ ‘To Mr. Button.’ ‘To John Clerk, Esq., of Eldin.’ ‘To Adam Smith, Esq.’ ‘To Dr. Robertson.’

‘Upon my word, my legal friend has a good selection of acquaintances; these are names pretty widely blown indeed. An East-Indian must rub up his facultiesa little, and put his mind in order, before he enters this sort of society.’

Mannering gladly availed himself of these introductions; and we regret deeply it is not in our power to give the reader an account of the pleasure and information which he received in admission to a circle never closed against strangers of sense and information, and which has perhaps at no period been equalled, considering the depth and variety of talent which it embraced and concentrated.

Upon the Thursday appointed Mr. Pleydell made his appearance at the inn where Colonel Mannering lodged. The venison proved in high order, the claret excellent, and the learned counsel, a professed amateur in the affairs of the table, did distinguished

honour to both. I am uncertain, however, if even the good cheer gave him more satisfaction than the presence of Dominie Sampson, from whom, in his own juridical style of wit, he contrived to extract great amusement both for himself and one or two friends whom the Colonel regaled on the same occasion. The grave and laconic simplicity of Sampson's answers to the insidious questions of the barrister placed the bonhomie of his character in a more luminous point of view than Mannering had yet seen it. Upon the same occasion he drew forth a strange quantity of miscellaneous and abstruse, though, generally speaking, useless learning. The lawyer afterwards compared his mind to the magazine of a pawnbroker, stowed with goods of every description, but so cumbrously piled together, and in such total disorganisation, that the owner can never lay his hands upon any one article at the moment he has occasion for it.

As for the advocate himself, he afforded at least as much exercise to Sampson as he extracted amusement from him. When the man of law began to get into his altitudes, and his wit, naturally shrewd and dry, became more lively and poignant, the Dominie looked upon him with that sort of surprise with which we can conceive a tame bear might regard his future associate, the monkey, on their being first introduced to each other. It was Mr. Pleydell's delight to state in grave and serious argument some position which he knew the Dominie would be inclined to dispute. He then beheld with exquisite pleasure the internal labour with which the honest man arranged his ideas for reply, and tasked his inert and sluggish powers to bring up all the heavy artillery of his learning for demolishing the schismatic or heretical opinion which had been stated, when behold, before the ordnance could be discharged, the foe had quitted the post and appeared in a new position of annoyance on the Dominie's flank or rear. Often did he exclaim 'Prodigious!' when, marching up to the enemy in full confidence of victory, he found the field evacuated, and it may be supposed that it cost him no little labour to attempt a new formation. 'He was like a native Indian army,' the Colonel said, 'formidable by numerical strength and size of ordnance, but liable to be thrown into irreparable confusion by a movement to take them in flank.' On the whole, however, the Dominie,

though somewhat fatigued with these mental exertions, made at unusual speed and upon the pressure of the moment, reckoned this one of the white days of his life, and always mentioned Mr. Pleydell as a very erudite and fa-ce-ti-ous person.

By degrees the rest of the party dropped off and left these three gentlemen together. Their conversation turned to Mrs. Bertram's settlements. 'Now what could drive it into the noddle of that old harridan,' said Pleydell, 'to disinherit poor Lucy Bertram under pretence of settling her property on a boy who has been so long dead and gone? I ask your pardon, Mr. Sampson, I forgot what an affecting case this was for you; I remember taking your examination upon it, and I never had so much trouble to make any one speak three words consecutively. You may talk of your Pythagoreans or your silent Brahmins, Colonel; go to, I tell you this learned gentleman beats them all in taciturnity; but the words of the wise are precious, and not to be thrown away lightly.'

'Of a surety,' said the Dominie, taking his blue-checqued handkerchief from his eyes, 'that was a bitter day with me indeed; ay, and a day of grief hard to be borne; but He giveth strength who layeth on the load.'

Colonel Mannering took this opportunity to request Mr. Pleydell to inform him of the particulars attending the loss of the boy; and the Counsellor, who was fond of talking upon subjects of criminal jurisprudence, especially when connected with his own experience, went through the circumstances at full length. 'And what is your opinion upon the result of the whole?'

'O, that Kennedy was murdered: it's an old case which has occurred on that coast before now, the case of Smuggler versus Exciseman.'

'What, then, is your conjecture concerning the fate of the child?'

'O, murdered too, doubtless,' answered Pleydell. 'He was old enough to tell what he had seen, and these ruthless scoundrels would not scruple committing a second Bethlehem massacre if they thought their interest required it.'

The Dominie groaned deeply, and ejaculated, 'Enormous!'

‘Yet there was mention of gipsies in the business too, Counsellor,’ said Mannering, ‘and from what that vulgar-looking fellow said after the funeral--’

‘Mrs. Margaret Bertram’s idea that the child was alive was founded upon the report of a gipsy?’ said Pleydell, catching at the half-spoken hint. ‘I envy you the concatenation, Colonel; it is a shame to me not to have drawn the same conclusion. We’ll follow this business up instantly. Here, hark ye, waiter, go down to Luckie Wood’s in the Cowgate; ye’ll find my clerk Driver; he’ll be set down to high jinks by this time--for we and our retainers, Colonel, are exceedingly regular in our irregularities--tell him to come here instantly and I will pay his forfeits.’

‘He won’t appear in character, will he?’ said Mannering.

‘Ah! “no more of that, Hal, an thou lovest me,”’ said Pleydell. ‘But we must have some news from the land of Egypt, if possible. O, if I had but hold of the slightest thread of this complicated skein, you should see how I would unravel it! I would work the truth out of your Bohemian, as the French call them, better than a monitoire or a plainte de Tournelle; I know how to manage a refractory witness.’

While Mr. Pleydell was thus vaunting his knowledge of his profession, the waiter reentered with Mr. Driver, his mouth still greasy with mutton pies, and the froth of the last draught of twopenny yet unsubsided on his upper lip, with such speed had he obeyed the commands of his principal. ‘Driver, you must go instantly and find out the woman who was old Mrs. Margaret Bertram’s maid. Inquire for her everywhere, but if you find it necessary to have recourse to Protocol, Quid the tobacconist, or any other of these folks, you will take care not to appear yourself, but send some woman of your acquaintance; I daresay you know enough that may be so condescending as to oblige you. When you have found her out, engage her to come to my chambers tomorrow at eight o’clock precisely.’

‘What shall I say to make her forthcoming?’ asked the aid-de-camp.

‘Anything you choose,’ replied the lawyer. ‘Is it my business to make lies for you, do you think? But let her be in praesentia by eight o’clock, as I have said before.’ The clerk grinned, made his reverence, and exit.

‘That’s a useful fellow,’ said the Counsellor; ‘I don’t believe his match ever carried a process. He’ll write to my dictating three nights in the week without sleep, or, what’s the same thing, he writes as well and correctly when he’s asleep as when he’s awake. Then he’s such a steady fellow; some of them are always changing their ale-houses, so that they have twenty cadies sweating after them, like the bare-headed captains traversing the taverns of Eastcheap in search of Sir John Falstaff. But this is a complete fixture; he has his winter seat by the fire and his summer seat by the window in Luckie Wood’s, betwixt which seats are his only migrations; there he’s to be found at all times when he is off duty. It is my opinion he never puts off his clothes or goes to sleep; sheer ale supports him under everything. It is meat, drink, and cloth, bed, board, and washing.’

‘And is he always fit for duty upon a sudden turnout? I should distrust it, considering his quarters.’

‘O, drink, never disturbs him, Colonel; he can write for hours after he cannot speak. I remember being called suddenly to draw an appeal case. I had been dining, and it was Saturday night, and I had ill will to begin to it; however, they got me down to Clerihugh’s, and there we sat birling till I had a fair tappit hen [Footnote: See Note 2.] under my belt, and then they persuaded me to draw the paper. Then we had to seek Driver, and it was all that two men could do to bear him in, for, when found, he was, as it happened, both motionless and speechless. But no sooner was his pen put between his fingers, his paper stretched before him, and he heard my voice, than he began to write like a scrivener; and, excepting that we were obliged to have somebody to dip his pen in the ink, for he could not see the standish, I never saw a thing scrolled more handsomely.’

‘But how did your joint production look the next morning?’ said the Colonel.

‘Wheugh! capital! not three words required to be altered: [Footnote: See Note 3.] it was sent off by that day’s post. But you’ll come and breakfast with me to-morrow, and hear this woman’s examination?’

‘Why, your hour is rather early.’

‘Can’t make it later. If I were not on the boards of the Outer House precisely as the nine-hours’ bell rings, there would be a report that I had got an apoplexy, and I should feel the effects of it all the rest of the session.’

‘Well, I will make an exertion to wait upon you.’

Here the company broke up for the evening.

In the morning Colonel Mannering appeared at the Counsellor’s chambers, although cursing the raw air of a Scottish morning in December. Mr. Pleydell had got Mrs. Rebecca installed on one side of his fire, accommodated her with a cup of chocolate, and was already deeply engaged in conversation with her. ‘O no, I assure you, Mrs. Rebecca, there is no intention to challenge your mistress’s will; and I give you my word of honour that your legacy is quite safe. You have deserved it by your conduct to your mistress, and I wish it had been twice as much.’

‘Why, to be sure, sir, it’s no right to mention what is said before ane; ye heard how that dirty body Quid cast up to me the bits o’ compliments he gied me, and tell’d ower again ony loose cracks I might hae had wi’ him; now if ane was talking loosely to your honour, there’s nae saying what might come o’t.’

‘I assure you, my good Rebecca, my character and your own age and appearance are your security, if you should talk as loosely as an amatory poet.’

‘Aweel, if your honour thinks I am safe--the story is just this. Ye see, about a year ago, or no just sae lang, my leddy was advised to go to Gilsland for a while, for her spirits were distressing her sair. Ellangowan’s troubles began to be spoken o’ publicly, and sair vexed she was; for she was proud o’ her family. For Ellangowan himsell and her, they sometimes ‘greed and some times no; but at last they didna ‘gree at a’ for twa

or three year, for he was aye wanting to borrow siller, and that was what she couldna bide at no hand, and she was aye wanting it paid back again, and that the Laird he liked as little. So at last they were clean aff thegither. And then some of the company at Gilsland tells her that the estate was to be sell'd; and ye wad hae thought she had taen an ill will at Miss Lucy Bertram frae that moment, for mony a time she cried to me, "O Becky, O Becky, if that useless peenging thing o' a lassie there at Ellangowan, that canna keep her ne'er-do-weel father within bounds--if she had been but a lad-bairn they couldna hae sell'd the auld inheritance for that fool-body's debts"; and she would rin on that way till I was just wearied and sick to hear her ban the puir lassie, as if she wadna hae been a lad-bairn and keepit the land if it had been in her will to change her sect. And ae day at the spaw-well below the craig at Gilsland she was seeing a very bonny family o' bairns--they belanged to ane Mac-Crosky--and she broke out--"Is not it an odd like thing that ilka waf carle in the country has a son and heir, and that the house of Ellangowan is without male succession?" There was a gipsy wife stood ahint and heard her, a muckle sture fearsome-looking wife she was as ever I set een on. "Wha is it," says she, "that dare say the house of Ellangowan will perish without male succession?" My mistress just turned on her; she was a high-spirited woman, and aye ready wi' an answer to a' body. "It's me that says it," says she, "that may say it with a sad heart." Wi' that the gipsy wife gripped till her hand--"I ken you weel eneugh," says she, "though ye kenna me. But as sure as that sun's in heaven, and as sure as that water's rinning to the sea, and as sure as there's an ee that sees and an ear that hears us baith, Harry Bertram, that was thought to perish at Warroch Point, never did die there. He was to have a weary weird o't till his ane-and-twentieth year, that was aye said o' him; but if ye live and I live, ye'll hear mair o' him this winter before the snaw lies twa days on the Dun of Singleside. I want nane o' your siller," she said, "to make ye think I am blearing your ee; fare ye weel till after Martinmas." And there she left us standing.'

'Was she a very tall woman?' interrupted Mannering.

‘Had she black hair, black eyes, and a cut above the brow?’ added the lawyer.

‘She was the tallest woman I ever saw, and her hair was as black as midnight, unless where it was grey, and she had a scar abune the brow that ye might hae laid the lith of your finger in. Naebody that’s seen her will ever forget her; and I am morally sure that it was on the ground o’ what that gipsy-woman said that my mistress made her will, having taen a dislike at the young leddy o’ Ellangowan. And she liked her far waur after she was obliged to send her L20; for she said Miss Bertram, no content wi’ letting the Ellangowan property pass into strange hands, owing to her being a lass and no a lad, was coming, by her poverty, to be a burden and a disgrace to Singleside too. But I hope my mistress’s is a good will for a’ that, for it would be hard on me to lose the wee bit legacy; I served for little fee and bountith, weel I wot.’

The Counsellor relieved her fears on this head, then inquired after Jenny Gibson, and understood she had accepted Mr. Dinmont’s offer. ‘And I have done sae mysell too, since he was sae discreet as to ask me,’ said Mrs. Rebecca; ‘they are very decent folk the Dinmonts, though my lady didna dow to hear muckle about the friends on that side the house. But she liked the Charlie’s Hope hams and the cheeses and the muir-fowl that they were aye sending, and the lamb’s-wool hose and mittens--she liked them weel eneugh.’

Mr. Pleydell now dismissed Mrs. Rebecca. When she was gone, ‘I think I know the gipsy-woman,’ said the lawyer.

‘I was just going to say the same,’ replied Mannering.

‘And her name,’ said Pleydell--

‘Is Meg Merrilies,’ answered the Colonel.

‘Are you avised of that?’ said the Counsellor, looking at his military friend with a comic expression of surprise.

Mannering answered that he had known such a woman when he was at Ellangowan upwards of twenty years before; and then made his learned friend acquainted with all the remarkable particulars of his first visit there.

Mr. Pleydell listened with great attention, and then replied, ‘I congratulated myself upon having made the acquaintance of a profound theologian in your chaplain; but I really did not expect to find a pupil of Albumazar or Messahala in his patron. I have a notion, however, this gipsy could tell us some more of the matter than she derives from astrology or second-sight. I had her through hands once, and could then make little of her, but I must write to Mac-Morlan to stir heaven and earth to find her out. I will gladly come to--shire myself to assist at her examination; I am still in the commission of the peace there, though I have ceased to be sheriff. I never had anything more at heart in my life than tracing that murder and the fate of the child. I must write to the sheriff of Roxburghshire too, and to an active justice of peace in Cumberland.’

‘I hope when you come to the country you will make Woodbourne your headquarters?’

‘Certainly; I was afraid you were going to forbid me. But we must go to breakfast now or I shall be too late.’

On the following day the new friends parted, and the Colonel rejoined his family without any adventure worthy of being detailed in these chapters.

zaid n. adwan

CHAPTER XI

Can no rest find me, no private place secure me,
But still my miseries like bloodhounds haunt me?
Unfortunate young man, which way now guides thee,
Guides thee from death? The country's laid around for thee.

Women Pleased.

Our narrative now recalls us for a moment to the period when young Hazlewood received his wound. That accident had no sooner happened than the consequences to Miss Mannering and to himself rushed upon Brown's mind. From the manner in which the muzzle of the piece was pointed when it went off, he had no great fear that the consequences would be fatal. But an arrest in a strange country, and while he was unprovided with any means of establishing his rank and character, was at least to be avoided. He therefore resolved to escape for the present to the neighbouring coast of England, and to remain concealed there, if possible, until he should receive letters from his regimental friends, and remittances from his agent; and then to resume his own character, and offer to young Hazlewood and his friends any explanation or satisfaction they might desire. With this purpose he walked stoutly forward, after leaving the spot where the accident had happened, and reached without adventure the village which we have called Portanferry (but which the reader will in vain seek for under that name in the county map). A large open boat was just about to leave the quay, bound for the little seaport of Allonby, in Cumberland. In this vessel Brown embarked, and resolved to make that place his temporary abode, until he should receive letters and money from England.

In the course of their short voyage he entered into some conversation with the steersman, who was also owner of the boat, a jolly old man, who had occasionally been engaged in the smuggling trade, like most fishers on the coast. After talking about objects of less interest, Brown endeavoured to turn the discourse toward the Mannering

family. The sailor had heard of the attack upon the house at Woodbourne, but disapproved of the smugglers' proceedings.

'Hands off is fair play; zounds, they'll bring the whole country down upon them. Na, na! when I was in that way I played at giff-gaff with the officers: here a cargo taen--vera weel, that was their luck; there another carried clean through, that was mine; na, na! hawks shouldna pike out hawks' een.'

'And this Colonel Mannering?' said Brown.

'Troth, he's nae wise man neither, to interfere; no that I blame him for saving the gangers' lives, that was very right; but it wasna like a gentleman to be righting about the poor folk's pocks o' tea and brandy kegs. However, he's a grand man and an officer man, and they do what they like wi' the like o' us.'

'And his daughter,' said Brown, with a throbbing heart, 'is going to be married into a great family too, as I have heard?'

'What, into the Hazlewoods'?' said the pilot. 'Na, na, that's but idle clashes; every Sabbath day, as regularly as it came round, did the young man ride hame wi' the daughter of the late Ellangowan; and my daughter Peggy's in the service up at Woodbourne, and she says she's sure young Hazlewood thinks nae mair of Miss Mannering than you do.'

Bitterly censuring his own precipitate adoption of a contrary belief, Brown yet heard with delight that the suspicions of Julia's fidelity, upon which he had so rashly acted, were probably void of foundation. How must he in the meantime be suffering in her opinion? or what could she suppose of conduct which must have made him appear to her regardless alike of her peace of mind and of the interests of their affection? The old man's connexion with the family at Woodbourne seemed to offer a safe mode of communication, of which he determined to avail himself.

'Your daughter is a maid-servant at Woodbourne? I knew Miss Mannering in India, and, though I am at present in an inferior rank of life, I have great reason to hope she

would interest herself in my favour. I had a quarrel unfortunately with her father, who was my commanding officer, and I am sure the young lady would endeavour to reconcile him to me. Perhaps your daughter could deliver a letter to her upon the subject, without making mischief between her father and her?'

The old man, a friend to smuggling of every kind, readily answered for the letter's being faithfully and secretly delivered; and, accordingly, as soon as they arrived at Allonby Brown wrote to Miss Mannering, stating the utmost contrition for what had happened through his rashness, and conjuring her to let him have an opportunity of pleading his own cause, and obtaining forgiveness for his indiscretion. He did not judge it safe to go into any detail concerning the circumstances by which he had been misled, and upon the whole endeavoured to express himself with such ambiguity that, if the letter should fall into wrong hands, it would be difficult either to understand its real purport or to trace the writer. This letter the old man undertook faithfully to deliver to his daughter at Woodbourne; and, as his trade would speedily again bring him or his boat to Allonby, he promised farther to take charge of any answer with which the young lady might entrust him.

And now our persecuted traveller landed at Allonby, and sought for such accommodations as might at once suit his temporary poverty and his desire of remaining as much unobserved as possible. With this view he assumed the name and profession of his friend Dudley, having command enough of the pencil to verify his pretended character to his host of Allonby. His baggage he pretended to expect from Wigton; and keeping himself as much within doors as possible, awaited the return of the letters which he had sent to his agent, to Delaserre, and to his lieutenant-colonel. From the first he requested a supply of money; he conjured Delaserre, if possible, to join him in Scotland; and from the lieutenant-colonel he required such testimony of his rank and conduct in the regiment as should place his character as a gentleman and officer beyond the power of question. The inconvenience of being run short in his finances struck him so strongly

that he wrote to Dinmont on that subject, requesting a small temporary loan, having no doubt that, being within sixty or seventy miles of his residence, he should receive a speedy as well as favourable answer to his request of pecuniary accommodation, which was owing, as he stated, to his having been robbed after their parting. And then, with impatience enough, though without any serious apprehension, he waited the answers of these various letters.

It must be observed, in excuse of his correspondents, that the post was then much more tardy than since Mr. Palmer's ingenious invention has taken place; and with respect to honest Dinmont in particular, as he rarely received above one letter a quarter (unless during the time of his being engaged in a law-suit, when he regularly sent to the post-town), his correspondence usually remained for a month or two sticking in the postmaster's window among pamphlets, gingerbread, rolls, or ballads, according to the trade which the said postmaster exercised. Besides, there was then a custom, not yet wholly obsolete, of causing a letter from one town to another, perhaps within the distance of thirty miles, perform a circuit of two hundred miles before delivery; which had the combined advantage of airing the epistle thoroughly, of adding some pence to the revenue of the post-office, and of exercising the patience of the correspondents. Owing to these circumstances Brown remained several days in Allonby without any answers whatever, and his stock of money, though husbanded with the utmost economy, began to wear very low, when he received by the hands of a young fisherman the following letter:--

'You have acted with the most cruel indiscretion; you have shown how little I can trust to your declarations that my peace and happiness are dear to you; and your rashness has nearly occasioned the death of a young man of the highest worth and honour. Must I say more? must I add that I have been myself very ill in consequence of your violence and its effects? And, alas! need I say still farther, that I have thought anxiously upon them as they are likely to affect you, although you have given me such slight cause to do so? The C. is gone from home for several days, Mr. H. is almost quite recovered, and I have reason to think that the blame is laid in a quarter different from that where it is deserved. Yet do not think of venturing here. Our fate has been crossed by accidents of a nature too violent and

terrible to permit me to think of renewing a correspondence which has so often threatened the most dreadful catastrophe. Farewell, therefore, and believe that no one can wish your happiness more sincerely than

'J. M.'

This letter contained that species of advice which is frequently given for the precise purpose that it may lead to a directly opposite conduct from that which it recommends. At least so thought Brown, who immediately asked the young fisherman if he came from Portanferry.

'Ay,' said the lad; 'I am auld Willie Johnstone's son, and I got that letter frae my sister Peggy, that's laundry maid at Woodbourne.'

'My good friend, when do you sail?'

'With the tide this evening.'

'I'll return with you; but, as I do not desire to go to Portanferry, I wish you could put me on shore somewhere on the coast.'

'We can easily do that,' said the lad.

Although the price of provisions, etc., was then very moderate, the discharging his lodgings, and the expense of his living, together with that of a change of dress, which safety as well as a proper regard to his external appearance rendered necessary, brought Brown's purse to a very low ebb. He left directions at the post-office that his letters should be forwarded to Kippletringan, whither he resolved to proceed and reclaim the treasure which he had deposited in the hands of Mrs. MacCandlish. He also felt it would be his duty to assume his proper character as soon as he should receive the necessary evidence for supporting it, and, as an officer in the king's service, give and receive every explanation which might be necessary with young Hazlewood. 'If he is not very wrong-headed indeed,' he thought, 'he must allow the manner in which I acted to have been the necessary consequence of his own overbearing conduct.'

And now we must suppose him once more embarked on the Solway Firth. The wind was adverse, attended by some rain, and they struggled against it without much assistance from the tide. The boat was heavily laden with goods (part of which were probably contraband), and laboured deep in the sea. Brown, who had been bred a sailor, and was indeed skilled in most athletic exercises, gave his powerful and effectual assistance in rowing, or occasionally in steering the boat, and his advice in the management, which became the more delicate as the wind increased, and, being opposed to the very rapid tides of that coast, made the voyage perilous. At length, after spending the whole night upon the firth, they were at morning within sight of a beautiful bay upon the Scottish coast. The weather was now more mild. The snow, which had been for some time waning, had given way entirely under the fresh gale of the preceding night. The more distant hills, indeed, retained their snowy mantle, but all the open country was cleared, unless where a few white patches indicated that it had been drifted to an uncommon depth. Even under its wintry appearance the shore was highly interesting. The line of sea-coast, with all its varied curves, indentures, and embayments, swept away from the sight on either hand, in that varied, intricate, yet graceful and easy line which the eye loves so well to pursue. And it was no less relieved and varied in elevation than in outline by the different forms of the shore, the beach in some places being edged by steep rocks, and in others rising smoothly from the sands in easy and swelling slopes. Buildings of different kinds caught and reflected the wintry sunbeams of a December morning, and the woods, though now leafless, gave relief and variety to the landscape. Brown felt that lively and awakening interest which taste and sensibility always derive from the beauties of nature when opening suddenly to the eye after the dulness and gloom of a night voyage. Perhaps--for who can presume to analyse that inexplicable feeling which binds the person born in a mountainous country to, his native hills--perhaps some early associations, retaining their effect long after the cause was forgotten, mingled in the feelings of pleasure with which he regarded the scene before him.

zaid n. adwan

‘And what,’ said Brown to the boatman, ‘is the name of that fine cape that stretches into the sea with its sloping banks and hillocks of wood, and forms the right side of the bay?’

‘Warroch Point,’ answered the lad.

‘And that old castle, my friend, with the modern house situated just beneath it? It seems at this distance a very large building.’

‘That’s the Auld Place, sir; and that’s the New Place below it. We’ll land you there if you like.’

‘I should like it of all things. I must visit that ruin before I continue my journey.’

‘Ay, it’s a queer auld bit,’ said the fisherman; ‘and that highest tower is a gude landmark as far as Ramsay in Man and the Point of Ayr; there was muckle fighting about the place lang syne.’

Brown would have inquired into farther particulars, but a fisherman is seldom an antiquary. His boatman’s local knowledge was summed up in the information already given, ‘that it was a grand landmark, and that there had been muckle fighting about the bit lang syne.’

‘I shall learn more of it,’ said Brown to himself, ‘when I get ashore.’

The boat continued its course close under the point upon which the castle was situated, which frowned from the summit of its rocky site upon the still agitated waves of the bay beneath. ‘I believe,’ said the steersman, ‘ye’ll get ashore here as dry as ony gate. There’s a place where their berlins and galleys, as they ca’d them, used to lie in lang syne, but it’s no used now, because it’s ill carrying gudes up the narrow stairs or ower the rocks. Whiles of a moonlight night I have landed articles there, though.’

zaid n. adwan

While he thus spoke they pulled round a point of rock, and found a very small harbour, partly formed by nature, partly by the indefatigable labour of the ancient inhabitants of the castle, who, as the fisherman observed, had found it essential for the protection of their boats and small craft, though it could not receive vessels of any burden. The two points of rock which formed the access approached each other so nearly that only one boat could enter at a time. On each side were still remaining two immense iron rings, deeply morticed into the solid rock. Through these, according to tradition, there was nightly drawn a huge chain, secured by an immense padlock, for the protection of the haven and the armada which it contained. A ledge of rock had, by the assistance of the chisel and pickaxe, been formed into a sort of quay. The rock was of extremely hard consistence, and the task so difficult that, according to the fisherman, a labourer who wrought at the work might in the evening have carried home in his bonnet all the shivers which he had struck from the mass in the course of the day. This little quay communicated with a rude staircase, already repeatedly mentioned, which descended from the old castle. There was also a communication between the beach and the quay, by scrambling over the rocks.

'Ye had better land here,' said the lad, 'for the surf's running high at the Shellicoat Stane, and there will no be a dry thread amang us or we get the cargo out. Na! na! (in answer to an offer of money) ye have wrought for your passage, and wrought far better than ony o' us. Gude day to ye; I wuss ye weel.'

So saying, he pushed oil in order to land his cargo on the opposite side of the bay; and Brown, with a small bundle in his hand, containing the trifling stock of necessaries which he had been obliged to purchase at Allonby, was left on the rocks beneath the ruin.

And thus, unconscious as the most absolute stranger, and in circumstances which, if not destitute, were for the present highly embarrassing, without the countenance of a friend within the circle of several hundred miles, accused of a heavy crime, and, what

was as bad as all the rest, being nearly penniless, did the harassed wanderer for the first time after the interval of so many years approach the remains of the castle where his ancestors had exercised all but regal dominion.

CHAPTER XII

Yes ye moss-green walls,
Ye towers defenceless, I revisit ye
Shame-stricken! Where are all your trophies now?
Your thronged courts, the revelry, the tumult,
That spoke the grandeur of my house, the homage
Of neighbouring barons?

Mysterious Mother.

Entering the castle of Ellangowan by a postern doorway which showed symptoms of having been once secured with the most jealous care, Brown (whom, since he has set foot upon the property of his fathers, we shall hereafter call by his father's name of Bertram) wandered from one ruined apartment to another, surprised at the massive strength of some parts of the building, the rude and impressive magnificence of others, and the great extent of the whole. In two of these rooms, close beside each other, he saw signs of recent habitation. In one small apartment were empty bottles, half-gnawed bones, and dried fragments of bread. In the vault which adjoined, and which was defended by a strong door, then left open, he observed a considerable quantity of straw, and in both were the relics of recent fires. How little was it possible for Bertram to

conceive that such trivial circumstances were closely connected with incidents affecting his prosperity, his honour, perhaps his life!

After satisfying his curiosity by a hasty glance through the interior of the castle, Bertram now advanced through the great gateway which opened to the land, and paused to look upon the noble landscape which it commanded. Having in vain endeavoured to guess the position of Woodbourne, and having nearly ascertained that of Kippletringan, he turned to take a parting look at the stately ruins which he had just traversed. He admired the massive and picturesque effect of the huge round towers, which, flanking the gateway, gave a double portion of depth and majesty to the high yet gloomy arch under which it opened. The carved stone escutcheon of the ancient family, bearing for their arms three wolves' heads, was hung diagonally beneath the helmet and crest, the latter being a wolf couchant pierced with an arrow. On either side stood as supporters, in full human size or larger, a salvage man PROPER, to use the language of heraldry, WREATHED AND CINCTURED, and holding in his hand an oak tree ERADICATED, that is, torn up by the roots.

'And the powerful barons who owned this blazonry,' thought Bertram, pursuing the usual train of ideas which flows upon the mind at such scenes--'do their posterity continue to possess the lands which they had laboured to fortify so strongly? or are they wanderers, ignorant perhaps even of the fame or power of their fore-fathers, while their hereditary possessions are held by a race of strangers? Why is it,' he thought, continuing to follow out the succession of ideas which the scene prompted--'why is it that some scenes awaken thoughts which belong as it were to dreams of early and shadowy recollection, such as my old Brahmin moonshie would have ascribed to a state of previous existence? Is it the visions of our sleep that float confusedly in our memory, and are recalled by the appearance of such real objects as in any respect correspond to the phantoms they presented to our imagination? How often do we find ourselves in society which we have never before met, and yet feel impressed with a mysterious and

ill-defined consciousness that neither the scene, the speakers, nor the subject are entirely new; nay, feel as if we could anticipate that part of the conversation which has not yet taken place! It is even so with me while I gaze upon that ruin; nor can I divest myself of the idea that these massive towers and that dark gateway, retiring through its deep-vaulted and ribbed arches, and dimly lighted by the courtyard beyond, are not entirely strange to me. Can it be that they have been familiar to me in infancy, and that I am to seek in their vicinity those friends of whom my childhood has still a tender though faint remembrance, and whom I early exchanged for such severe task-masters? Yet Brown, who, I think, would not have deceived me, always told me I was brought off from the eastern coast, after a skirmish in which my father was killed; and I do remember enough of a horrid scene of violence to strengthen his account.'

It happened that the spot upon which young Bertram chanced to station himself for the better viewing the castle was nearly the same on which his father had died. It was marked by a large old oak-tree, the only one on the esplanade, and which, having been used for executions by the barons of Ellangowan, was called the Justice Tree. It chanced, and the coincidence was remarkable, that Glossin was this morning engaged with a person whom he was in the habit of consulting in such matters concerning some projected repairs and a large addition to the house of Ellangowan, and that, having no great pleasure in remains so intimately connected with the grandeur of the former inhabitants, he had resolved to use the stones of the ruinous castle in his new edifice. Accordingly he came up the bank, followed by the land-surveyor mentioned on a former occasion, who was also in the habit of acting as a sort of architect in case of necessity. In drawing the plans, etc., Glossin was in the custom of relying upon his own skill. Bertram's back was towards them as they came up the ascent, and he was quite shrouded by the branches of the large tree, so that Glossin was not aware of the presence of the stranger till he was close upon him.

‘Yes, sir, as I have often said before to you, the Old Place is a perfect quarry of hewn stone, and it would be better for the estate if it were all down, since it is only a den for smugglers.’ At this instant Bertram turned short round upon Glossin at the distance of two yards only, and said--’Would you destroy this fine old castle, sir?’

His face, person, and voice were so exactly those of his father in his best days, that Glossin, hearing his exclamation, and seeing such a sudden apparition in the shape of his patron, and on nearly the very spot where he had expired, almost thought the grave had given up its dead! He staggered back two or three paces, as if he had received a sudden and deadly wound. He instantly recovered, however, his presence of mind, stimulated by the thrilling reflection that it was no inhabitant of the other world which stood before him, but an injured man whom the slightest want of dexterity on his part might lead to acquaintance with his rights, and the means of asserting them to his utter destruction. Yet his ideas were so much confused by the shock he had received that his first question partook of the alarm.

‘In the name of God, how came you here?’ said Glossin.

‘How came I here?’ repeated Bertram, surprised at the solemnity of the address; ‘I landed a quarter of an hour since in the little harbour beneath the castle, and was employing a moment’s leisure in viewing these fine ruins. I trust there is no intrusion?’

‘Intrusion, sir? No, sir,’ said Glossin, in some degree recovering his breath, and then whispered a few words into his companion’s ear, who immediately left him and descended towards the house. ‘Intrusion, sir? no, sir; you or any gentleman are welcome to satisfy your curiosity.’

‘I thank you, sir,’ said Bertram. ‘They call this the Old Place, I am informed?’

‘Yes, sir; in distinction to the New Place, my house there below.’

Glossin, it must be remarked, was, during the following dialogue, on the one hand eager to learn what local recollections young Bertram had retained of the scenes of his infancy, and on the other compelled to be extremely cautious in his replies, lest he

should awaken or assist, by some name, phrase, or anecdote, the slumbering train of association. He suffered, indeed, during the whole scene the agonies which he so richly deserved; yet his pride and interest, like the fortitude of a North American Indian, manned him to sustain the tortures inflicted at once by the contending stings of a guilty conscience, of hatred, of fear, and of suspicion.

'I wish to ask the name, sir,' said Bertram, 'of the family to whom this stately ruin belongs.'

'It is my property, sir; my name is Glossin.'

'Glossin--Glossin?' repeated Bertram, as if the answer were somewhat different from what he expected. 'I beg your pardon, Mr. Glossin; I am apt to be very absent. May I ask if the castle has been long in your family?'

'It was built, I believe, long ago by a family called Mac-Dingawaie,' answered Glossin, suppressing for obvious reasons the more familiar sound of Bertram, which might have awakened the recollections which he was anxious to lull to rest, and slurring with an evasive answer the question concerning the endurance of his own possession.

'And how do you read the half-defaced motto, sir,' said Bertram, 'which is upon that scroll above the entablature with the arms?'

'I--I--I really do not exactly know,' replied Glossin.

'I should be apt to make it out, OUR RIGHT MAKES OUR MIGHT.'

'I believe it is something of that kind,' said Glossin.

'May I ask, sir,' said the stranger, 'if it is your family motto?'

'N--n--no--no--not ours. That is, I believe, the motto of the former people; mine is--mine is--in fact, I have had some correspondence with Mr. Cumming of the Lyon Office in Edinburgh about mine. He writes me the Glossins anciently bore for a motto, "He who takes it, makes it."'

‘If there be any uncertainty, sir, and the case were mine,’ said Bertram, ‘I would assume the old motto, which seems to me the better of the two.’

Glossin, whose tongue by this time clove to the roof of his mouth, only answered by a nod.

‘It is odd enough,’ said Bertram, fixing his eye upon the arms and gateway, and partly addressing Glossin, partly as it were thinking aloud--’it is odd the tricks which our memory plays us. The remnants of an old prophecy, or song, or rhyme of some kind or other, return to my recollection on hearing that motto; stay--it is a strange jingle of sounds:--

The dark shall be light, And the wrong made right, When Bertram’s right and Bertram’s might Shall meet on---

I cannot remember the last line--on some particular height; HEIGHT is the rhyme, I am sure; but I cannot hit upon the preceding word.’

‘Confound your memory,’ muttered Glossin, ‘you remember by far too much of it!’

‘There are other rhymes connected with these early recollections,’ continued the young man. ‘Pray, sir, is there any song current in this part of the world respecting a daughter of the King of the Isle of Man eloping with a Scottish knight?’

‘I am the worst person in the world to consult upon legendary antiquities,’ answered Glossin.

‘I could sing such a ballad,’ said Bertram, ‘from one end to another when I was a boy. You must know I left Scotland, which is my native country, very young, and those who brought me up discouraged all my attempts to preserve recollection of my native land, on account, I believe, of a boyish wish which I had to escape from their charge.’

‘Very natural,’ said Glossin, but speaking as if his utmost efforts were unable to unseal his lips beyond the width of a quarter of an inch, so that his whole utterance was a kind of compressed muttering, very different from the round, bold, bullying voice with which he usually spoke. Indeed, his appearance and demeanour during all this

conversation seemed to diminish even his strength and stature; so that he appeared to wither into the shadow of himself, now advancing one foot, now the other, now stooping and wriggling his shoulders, now fumbling with the buttons of his waistcoat, now clasping his hands together; in short, he was the picture of a mean-spirited, shuffling rascal in the very agonies of detection. To these appearances Bertram was totally inattentive, being dragged on as it were by the current of his own associations. Indeed, although he addressed Glossin, he was not so much thinking of him as arguing upon the embarrassing state of his own feelings and recollection. 'Yes,' he said, 'I preserved my language among the sailors, most of whom spoke English, and when I could get into a corner by myself I used to sing all that song over from beginning to end; I have forgot it all now, but I remember the tune well, though I cannot guess what should at present so strongly recall it to my memory.'

He took his flageolet from his pocket and played a simple melody. Apparently the tune awoke the corresponding associations of a damsel who, close beside a fine spring about halfway down the descent, and which had once supplied the castle with water, was engaged in bleaching linen. She immediately took up the song:--

'Are these the Links of Forth, she said,
Or are they the crooks of Dee,
Or the bonnie woods of Warroch Head
That I so fain would see?'

'By heaven,' said Bertram, 'it is the very ballad! I must learn these words from the girl.'

'Confusion!' thought Glossin; 'if I cannot put a stop to this all will be out. O the devil take all ballads and ballad-makers and ballad-singers! and that d--d jade too, to set up her pipe!'--'You will have time enough for this on some other occasion,' he said aloud; 'at present' (for now he saw his emissary with two or three men coming up the bank)--'at present we must have some more serious conversation together.'

‘How do you mean, sir?’ said Bertram, turning short upon him, and not liking the tone which he made use of.

‘Why, sir, as to that--I believe your name is Brown?’ said Glossin. ‘And what of that, sir?’

Glossin looked over his shoulder to see how near his party had approached; they were coming fast on. ‘Vanbeest Brown? if I mistake not.’

‘And what of that, sir?’ said Bertram, with increasing astonishment and displeasure.

‘Why, in that case,’ said Glossin, observing his friends had now got upon the level space close beside them--’in that case you are my prisoner in the king’s name!’ At the same time he stretched his hand towards Bertram’s collar, while two of the men who had come up seized upon his arms; he shook himself, however, free of their grasp by a violent effort, in which he pitched the most pertinacious down the bank, and, drawing his cutlass, stood on the defensive, while those who had felt his strength recoiled from his presence and gazed at a safe distance. ‘Observe,’ he called out at the same time, ‘that I have no purpose to resist legal authority; satisfy me that you have a magistrate’s warrant, and are authorised to make this arrest, and I will obey it quietly; but let no man who loves his life venture to approach me till I am satisfied for what crime, and by whose authority, I am apprehended.’

Glossin then caused one of the officers show a warrant for the apprehension of Vanbeest Brown, accused of the crime of wilfully and maliciously shooting at Charles Hazlewood, younger of Hazlewood, with an intent to kill, and also of other crimes and misdemeanours, and which appointed him, having been so apprehended, to be brought before the next magistrate for examination. The warrant being formal, and the fact such as he could not deny, Bertram threw down his weapon and submitted himself to the officers, who, flying on him with eagerness corresponding to their former pusillanimity, were about to load him with irons, alleging the strength and activity which he had displayed as a justification of this severity. But Glossin was ashamed or afraid to permit

this unnecessary insult, and directed the prisoner to be treated with all the decency, and even respect, that was consistent with safety. Afraid, however, to introduce him into his own house, where still further subjects of recollection might have been suggested, and anxious at the same time to cover his own proceedings by the sanction of another's authority, he ordered his carriage (for he had lately set up a carriage) to be got ready, and in the meantime directed refreshments to be given to the prisoner and the officers, who were consigned to one of the rooms in the old castle, until the means of conveyance for examination before a magistrate should be provided.

CHAPTER XIII

Bring in the evidence.
Thou robed man of justice, take thy place,
And thou, his yoke-fellow of equity,
Bench by his side; you are of the commission,
Sit you too.

King Lear.

While the carriage was getting ready, Glossin had a letter to compose, about which he wasted no small time. It was to his neighbour, as he was fond of calling him, Sir Robert Hazlewood of Hazlewood, the head of an ancient and powerful interest in the county, which had in the decadence of the Ellangowan family gradually succeeded to much of their authority and influence. The present representative of the family was an elderly man, dotingly fond of his own family, which was limited to an only son and

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daughter, and stoically indifferent to the fate of all mankind besides. For the rest, he was honourable in his general dealings because he was afraid to suffer the censure of the world, and just from a better motive. He was presumptuously over-conceited on the score of family pride and importance, a feeling considerably enhanced by his late succession to the title of a Nova Scotia baronet; and he hated the memory of the Ellangowan family, though now a memory only, because a certain baron of that house was traditionally reported to have caused the founder of the Hazlewood family hold his stirrup until he mounted into his saddle. In his general deportment he was pompous and important, affecting a species of florid elocution, which often became ridiculous from his misarranging the triads and quaternions with which he loaded his sentences.

To this personage Glossin was now to write in such a conciliatory style as might be most acceptable to his vanity and family pride, and the following was the form of his note:--

'Mr. Gilbert Glossin' (he longed to add of Ellangowan, but prudence prevailed, and he suppressed that territorial designation)--'Mr. Gilbert Glossin has the honour to offer his most respectful compliments to Sir Robert Hazlewood, and to inform him that he has this morning been fortunate enough to secure the person who wounded Mr. C. Hazlewood. As Sir Robert Hazlewood may probably choose to conduct the examination of this criminal himself, Mr. G. Glossin will cause the man to be carried to the inn at Kippletringan or to Hazlewood House, as Sir Robert Hazlewood may be pleased to direct. And, with Sir Robert Hazlewood's permission, Mr. G. Glossin will attend him at either of these places with the proofs and declarations which he has been so fortunate as to collect respecting this atrocious business.'

Addressed,

'Sir ROBERT HAZLEWOOD of Hazlewood, Bart. 'Hazlewood House, etc. etc.

'ELLN GN.

'Tuesday.'

This note he despatched by a servant on horseback, and having given the man some time to get ahead, and desired him to ride fast, he ordered two officers of justice to get into the carriage with Bertram; and he himself, mounting his horse, accompanied them at a slow pace to the point where the roads to Kippletringan and Hazlewood House separated, and there awaited the return of his messenger, in order that his farther route might be determined by the answer he should receive from the Baronet. In about half an hour, his servant returned with the following answer, handsomely folded, and sealed with the Hazlewood arms, having the Nova Scotia badge depending from the shield:--

'Sir Robert Hazlewood of Hazlewood returns Mr. G. Glossin's compliments, and thanks him for the trouble he has taken in a matter affecting the safety of Sir Robert's family. Sir R.H. requests Mr. G. G. will have the goodness to bring the prisoner to Hazlewood House for examination, with the other proofs or declarations which he mentions. And after the business is over, in case Mr. G.G. is not otherwise engaged, Sir R. and Lady Hazlewood request his company to dinner.'

Addressed,

'Mr. GILBERT GLOSSIN, etc. 'HAZLEWOOD HOUSE, Tuesday.'

'Soh!' thought Mr. Glossin, 'here is one finger in at least, and that I will make the means of introducing my whole hand. But I must first get clear of this wretched young fellow. I think I can manage Sir Robert. He is dull and pompous, and will be alike disposed to listen to my suggestions upon the law of the case and to assume the credit of acting upon them as his own proper motion. So I shall have the advantage of being the real magistrate, without the odium of responsibility.'

As he cherished these hopes and expectations, the carriage approached Hazlewood House through a noble avenue of old oaks, which shrouded the ancient abbey-resembling building so called. It was a large edifice, built at different periods, part having actually been a priory, upon the suppression of which, in the time of Queen Mary, the first of the family had obtained a gift of the house and surrounding lands from

the crown. It was pleasantly situated in a large deer-park, on the banks of the river we have before mentioned. The scenery around was of a dark, solemn, and somewhat melancholy cast, according well with the architecture of the house. Everything appeared to be kept in the highest possible order, and announced the opulence and rank of the proprietor.

As Mr. Glossin's carriage stopped at the door of the hall, Sir Robert reconnoitred the new vehicle from the windows. According to his aristocratic feelings, there was a degree of presumption in this novus homo, this Mr. Gilbert Glossin, late writer in---, presuming to set up such an accommodation at all; but his wrath was mitigated when he observed that the mantle upon the panels only bore a plain cipher of G.G. This apparent modesty was indeed solely owing to the delay of Mr. Gumming of the Lyon Office, who, being at that time engaged in discovering and matriculating the arms of two commissaries from North America, three English-Irish peers, and two great Jamaica traders, had been more slow than usual in finding an escutcheon for the new Laird of Ellangowan. But his delay told to the advantage of Glossin in the opinion of the proud Baronet.

While the officers of justice detained their prisoner in a sort of steward's room, Mr. Glossin was ushered into what was called the great oak-parlour, a long room, panelled with well-varnished wainscot, and adorned with the grim portraits of Sir Robert Hazlewood's ancestry. The visitor, who had no internal consciousness of worth to balance that of meanness of birth, felt his inferiority, and by the depth of his bow and the obsequiousness of his demeanour showed that the Laird of Ellangowan was sunk for the time in the old and submissive habits of the quondam retainer of the law. He would have persuaded himself, indeed, that he was only humouring the pride of the old Baronet for the purpose of turning it to his own advantage, but his feelings were of a mingled nature, and he felt the influence of those very prejudices which he pretended to flatter.

The Baronet received his visitor with that condescending parade which was meant at once to assert his own vast superiority, and to show the generosity and courtesy with which he could waive it, and descend to the level of ordinary conversation with ordinary men. He thanked Glossin for his attention to a matter in which 'young Hazlewood' was so intimately concerned, and, pointing to his family pictures, observed, with a gracious smile, 'Indeed, these venerable gentlemen, Mr. Glossin, are as much obliged as I am in this case for the labour, pains, care, and trouble which you have taken in their behalf; and I have no doubt, were they capable of expressing themselves, would join me, sir, in thanking you for the favour you have conferred upon the house of Hazlewood by taking care, and trouble, sir, and interest in behalf of the young gentleman who is to continue their name and family.'

Thrice bowed Glossin, and each time more profoundly than before; once in honour of the knight who stood upright before him, once in respect to the quiet personages who patiently hung upon the wainscot, and a third time in deference to the young gentleman who was to carry on the name and family. Roturier as he was, Sir Robert was gratified by the homage which he rendered, and proceeded in a tone of gracious familiarity: 'And now, Mr. Glossin, my exceeding good friend, you must allow me to avail myself of your knowledge of law in our proceedings in this matter. I am not much in the habit of acting as a justice of the peace; it suits better with other gentlemen, whose domestic and family affairs require less constant superintendence, attention, and management than mine.'

Of course, whatever small assistance Mr. Glossin could render was entirely at Sir Robert Hazlewood's service; but, as Sir Robert Hazlewood's name stood high in the list of the faculty, the said Mr. Glossin could not presume to hope it could be either necessary or useful.

'Why, my good sir, you will understand me only to mean that I am something deficient in the practical knowledge of the ordinary details of justice business. I was

indeed educated to the bar, and might boast perhaps at one time that I had made some progress in the speculative and abstract and abstruse doctrines of our municipal code; but there is in the present day so little opportunity of a man of family and fortune rising to that eminence at the bar which is attained by adventurers who are as willing to plead for John a' Nokes as for the first noble of the land, that I was really early disgusted with practice. The first case, indeed, which was laid on my table quite sickened me: it respected a bargain, sir, of tallow between a butcher and a candlemaker; and I found it was expected that I should grease my mouth not only with their vulgar names, but with all the technical terms and phrases and peculiar language of their dirty arts. Upon my honour, my good sir, I have never been able to bear the smell of a tallow-candle since.'

Pitying, as seemed to be expected, the mean use to which the Baronet's faculties had been degraded on this melancholy occasion, Mr. Glossin offered to officiate as clerk or assessor, or in any way in which he could be most useful. 'And with a view to possessing you of the whole business, and in the first place, there will, I believe, be no difficulty in proving the main fact, that this was the person who fired the unhappy piece. Should he deny it, it can be proved by Mr. Hazlewood, I presume?'

'Young Hazlewood is not at home to-day, Mr. Glossin.'

'But we can have the oath of the servant who attended him,' said the ready Mr. Glossin; 'indeed, I hardly think the fact will be disputed. I am more apprehensive that, from the too favourable and indulgent manner in which I have understood that Mr. Hazlewood has been pleased to represent the business, the assault may be considered as accidental, and the injury as unintentional, so that the fellow may be immediately set at liberty to do more mischief.'

'I have not the honour to know the gentleman who now holds the office of king's advocate,' replied Sir Robert, gravely; 'but I presume, sir--nay, I am confident, that he will consider the mere fact of having wounded young Hazlewood of Hazlewood, even by inadvertency, to take the matter in its mildest and gentlest, and in its most favourable

and improbable, light, as a crime which will be too easily atoned by imprisonment, and as more deserving of deportation.'

'Indeed, Sir Robert,' said his assenting brother in justice, 'I am entirely of your opinion; but, I don't know how it is, I have observed the Edinburgh gentlemen of the bar, and even the officers of the crown, pique themselves upon an indifferent administration of justice, without respect to rank and family; and I should fear--'

'How, sir, without respect to rank and family? Will you tell me THAT doctrine can be held by men of birth and legal education? No, sir; if a trifle stolen in the street is termed mere pickery, but is elevated into sacrilege if the crime be committed in a church, so, according to the just gradations of society, the guilt of an injury is enhanced by the rank of the person to whom it is offered, done, or perpetrated, sir.'

Glossin bowed low to this declaration ex cathedra, but observed, that in the case of the very worst, and of such unnatural doctrines being actually held as he had already hinted, 'the law had another hold on Mr. Vanbeest Brown.'

'Vanbeest Brown! is that the fellow's name? Good God! that young Hazlewood of Hazlewood should have had his life endangered, the clavicle of his right shoulder considerably lacerated and dislodged, several large drops or slugs deposited in the acromion process, as the account of the family surgeon expressly bears, and all by an obscure wretch named Vanbeest Brown!'

'Why, really, Sir Robert, it is a thing which one can hardly bear to think of; but, begging ten thousand pardons for resuming what I was about to say, a person of the same name is, as appears from these papers (producing Dirk Hatteraick's pocket-book), mate to the smuggling vessel who offered such violence at Woodbourne, and I have no doubt that this is the same individual; which, however, your acute discrimination will easily be able to ascertain.'

'The same, my good sir, he must assuredly be; it would be injustice even to the meanest of the people to suppose there could be found among them TWO persons

doomed to bear a name so shocking to one's ears as this of Vanbeest Brown.' 'True, Sir Robert; most unquestionably; there cannot be a shadow of doubt of it. But you see farther, that this circumstance accounts for the man's desperate conduct. You, Sir Robert, will discover the motive for his crime--you, I say, will discover it without difficulty on your giving your mind to the examination; for my part, I cannot help suspecting the moving spring to have been revenge for the gallantry with which Mr. Hazlewood, with all the spirit of his renowned forefathers, defended the house at Woodbourne against this villain and his lawless companions.'

'I will inquire into it, my good sir,' said the learned Baronet. 'Yet even now I venture to conjecture that I shall adopt the solution or explanation of this riddle, enigma, or mystery which you have in some degree thus started. Yes! revenge it must be; and, good Heaven! entertained by and against whom? entertained, fostered, cherished against young Hazlewood of Hazlewood, and in part carried into effect, executed, and implemented by the hand of Vanbeest Brown! These are dreadful days indeed, my worthy neighbour (this epithet indicated a rapid advance in the Baronet's good graces)--days when the bulwarks of society are shaken to their mighty base, and that rank which forms, as it were, its highest grace and ornament is mingled and confused with the viler parts of the architecture. O, my good Mr. Gilbert Glossin, in my time, sir, the use of swords and pistols, and such honourable arms, was reserved by the nobility and gentry to themselves, and the disputes of the vulgar were decided by the weapons which nature had given them, or by cudgels cut, broken, or hewed out of the next wood. But now, sir, the clouted shoe of the peasant galls the kibe of the courtier. The lower ranks have their quarrels, sir, and their points of honour, and their revenges, which they must bring, forsooth, to fatal arbitrament. But well, well! it will last my time. Let us have in this fellow, this Vanbeest Brown, and make an end of him, at least for the present.'

CHAPTER XIV

'Twas he
Gave heat unto the injury, which returned,
Like a petard ill lighted, into the bosom
Of him gave fire to't. Yet I hope his hurt
Is not so dangerous but he may recover

Fair Maid of the Inn.

The prisoner was now presented before the two worshipful magistrates. Glossin, partly from some compunctious visitings, and partly out of his cautious resolution to suffer Sir Robert Hazlewood to be the ostensible manager of the whole examination, looked down upon the table, and busied himself with reading and arranging the papers respecting the business, only now and then throwing in a skilful catchword as prompter, when he saw the principal, and apparently most active, magistrate stand in need of a hint. As for Sir Robert Hazlewood, he assumed on his part a happy mixture of the austerity of the justice combined with the display of personal dignity appertaining to the baronet of ancient family.

'There, constables, let him stand there at the bottom of the table. Be so good as look me in the face, sir, and raise your voice as you answer the questions which I am going to put to you.'

'May I beg, in the first place, to know, sir, who it is that takes the trouble to interrogate me?' said the prisoner; 'for the honest gentlemen who have brought me here have not been pleased to furnish any information upon that point.'

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‘And pray, sir,’ answered Sir Robert, ‘what has my name and quality to do with the questions I am about to ask you?’

‘Nothing, perhaps, sir,’ replied Bertram; ‘but it may considerably influence my disposition to answer them.’

‘Why, then, sir, you will please to be informed that you are in presence of Sir Robert Hazlewood of Hazlewood, and another justice of peace for this county--that’s all.’

As this intimation produced a less stunning effect upon the prisoner than he had anticipated, Sir Robert proceeded in his investigation with an increasing dislike to the object of it.

‘Is your name Vanbeest Brown, sir?’

‘It is,’ answered the prisoner.

‘So far well; and how are we to design you farther, sir?’ demanded the Justice.

‘Captain in his Majesty’s---regiment of horse,’ answered Bertram.

The Baronet’s ears received this intimation with astonishment; but he was refreshed in courage by an incredulous look from Glossin, and by hearing him gently utter a sort of interjectional whistle, in a note of surprise and contempt. ‘I believe, my friend,’ said Sir Robert, ‘we shall find for you, before we part, a more humble title.’

‘If you do, sir,’ replied his prisoner, ‘I shall willingly submit to any punishment which such an imposture shall be thought to deserve.’

‘Well, sir, we shall see,’ continued Sir Robert. ‘Do you know young Hazlewood of Hazlewood?’

‘I never saw the gentleman who I am informed bears that name excepting once, and I regret that it was under very unpleasant circumstances.’

‘You mean to acknowledge, then,’ said the Baronet, ‘that you inflicted upon young Hazlewood of Hazlewood that wound which endangered his life, considerably lacerated

the clavicle of his right shoulder, and deposited, as the family surgeon declares, several large drops or slugs in the acromion process?'

'Why, sir,' replied Bertram, 'I can only say I am equally ignorant of and sorry for the extent of the damage which the young gentleman has sustained. I met him in a narrow path, walking with two ladies and a servant, and before I could either pass them or address them, this young Hazlewood took his gun from his servant, presented it against my body, and commanded me in the most haughty tone to stand back. I was neither inclined to submit to his authority nor to leave him in possession of the means to injure me, which he seemed disposed to use with such rashness. I therefore closed with him for the purpose of disarming him; and, just as I had nearly effected my purpose, the piece went off accidentally, and, to my regret then and since, inflicted upon the young gentleman a severer chastisement than I desired, though I am glad to understand it is like to prove no more than his unprovoked folly deserved.'

'And so, sir,' said the Baronet, every feature swoln with offended dignity, 'you, sir, admit, sir, that it was your purpose, sir, and your intention, sir, and the real jet and object of your assault, sir, to disarm young Hazlewood of Hazlewood of his gun, sir, or his fowling-piece, or his fuzee, or whatever you please to call it, sir, upon the king's highway, sir? I think this will do, my worthy neighbour! I think he should stand committed?'

'You are by far the best judge, Sir Robert,' said Glossin, in his most insinuating tone; 'but if I might presume to hint, there was something about these smugglers.'

'Very true, good sir. And besides, sir, you, Vanbeest Brown, who call yourself a captain in his Majesty's service, are no better or worse than a rascally mate of a smuggler!'

'Really, sir,' said Bertram, 'you are an old gentleman, and acting under some strange delusion, otherwise I should be very angry with you.'

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‘Old gentleman, sir! strange delusion, sir!’ said Sir Robert, colouring with indignation. ‘I protest and declare--Why, sir, have you any papers or letters that can establish your pretended rank and estate and commission?’

‘None at present, sir,’ answered Bertram; ‘but in the return of a post or two---’

‘And how do you, sir,’ continued the Baronet, ‘if you are a captain in his Majesty’s service--how do you chance to be travelling in Scotland without letters of introduction, credentials, baggage, or anything belonging to your pretended rank, estate, and condition, as I said before?’

‘Sir,’ replied the prisoner, ‘I had the misfortune to be robbed of my clothes and baggage.’

‘Oho! then you are the gentleman who took a post-chaise from---to Kippletringan, gave the boy the slip on the road, and sent two of your accomplices to beat the boy and bring away the baggage?’

‘I was, sir, in a carriage, as you describe, was obliged to alight in the snow, and lost my way endeavouring to find the road to Kippletringan. The landlady of the inn will inform you that on my arrival there the next day, my first inquiries were after the boy.’

‘Then give me leave to ask where you spent the night, not in the snow, I presume? You do not suppose that will pass, or be taken, credited, and received?’

‘I beg leave,’ said Bertram, his recollection turning to the gipsy female and to the promise he had given her--’I beg leave to decline answering that question.’

‘I thought as much,’ said Sir Robert. ‘Were you not during that night in the ruins of Derncleugh?--in the ruins of Derncleugh, sir?’

‘I have told you that I do not intend answering that question,’ replied Bertram.

‘Well, sir, then you will stand committed, sir,’ said Sir Robert, ‘and be sent to prison, sir, that’s all, sir. Have the goodness to look at these papers; are you the Vanbeest Brown who is there mentioned?’

It must be remarked that Glossin had shuffled among the papers some writings which really did belong to Bertram, and which had been found by the officers in the old vault where his portmanteau was ransacked.

‘Some of these papers,’ said Bertram, looking over them, ‘are mine, and were in my portfolio when it was stolen from the post-chaise. They are memoranda of little value, and, I see, have been carefully selected as affording no evidence of my rank or character, which many of the other papers would have established fully. They are mingled with ship-accounts and other papers, belonging apparently to a person of the same name.’

‘And wilt thou attempt to persuade me, friend,’ demanded Sir Robert, ‘that there are TWO persons in this country at the same time of thy very uncommon and awkwardly sounding name?’

‘I really do not see, sir, as there is an old Hazlewood and a young Hazlewood, why there should not be an old and a young Vanbeest Brown. And, to speak seriously, I was educated in Holland, and I know that this name, however uncouth it may sound in British ears---’

Glossin, conscious that the prisoner was now about to enter upon dangerous ground, interfered, though the interruption was unnecessary, for the purpose of diverting the attention of Sir Robert Hazlewood, who was speechless and motionless with indignation at the presumptuous comparison implied in Bertram’s last speech. In fact, the veins of his throat and of his temples swelled almost to bursting, and he sat with the indignant and disconcerted air of one who has received a mortal insult from a quarter to which he holds it unmeet and indecorous to make any reply. While, with a bent brow and an angry eye, he was drawing in his breath slowly and majestically, and puffing it forth again with deep and solemn exertion, Glossin stepped in to his assistance. ‘I should think now, Sir Robert, with great submission, that this matter may be closed. One of the constables, besides the pregnant proof already produced, offers to make oath that the sword of which the prisoner was this morning deprived (while using it, by the

way, in resistance to a legal warrant) was a cutlass taken from him in a fray between the officers and smugglers just previous to their attack upon Woodbourne. And yet,' he added, 'I would not have you form any rash construction upon that subject; perhaps the young man can explain how he came by that weapon.'

'That question, sir,' said Bertram, 'I shall also leave unanswered.'

'There is yet another circumstance to be inquired into, always under Sir Robert's leave,' insinuated Glossin. 'This prisoner put into the hands of Mrs. MacCandlish of Kippletringan a parcel containing a variety of gold coins and valuable articles of different kinds. Perhaps, Sir Robert, you might think it right to ask how he came by property of a description which seldom occurs?'

'You, sir, Mr. Vanbeest Brown, sir, you hear the question, sir, which the gentleman asks you?'

'I have particular reasons for declining to answer that question,' answered Bertram.

'Then I am afraid, sir,' said Glossin, who had brought matters to the point he desired to reach, 'our duty must lay us under the necessity to sign a warrant of committal.'

'As you please, sir,' answered Bertram; 'take care, however, what you do. Observe that I inform you that I am a captain in his Majesty's---regiment, and that I am just returned from India, and therefore cannot possibly be connected with any of those contraband traders you talk of; that my lieutenant-colonel is now at Nottingham, the major, with the officers of my corps, at Kingston-upon-Thames. I offer before you both to submit to any degree of ignominy if, within the return of the Kingston and Nottingham posts, I am not able to establish these points. Or you may write to the agent for the regiment if you please, and---'

'This is all very well, sir,' said Glossin, beginning to fear lest the firm expostulation of Bertram should make some impression on Sir Robert, who would almost have died of shame at committing such a solecism as sending a captain of horse to jail--'this is all very well, sir; but is there no person nearer whom you could refer to?'

‘There are only two persons in this country who know anything of me,’ replied the prisoner. ‘One is a plain Liddesdale sheep-farmer, called Dinmont of Charlie’s Hope; but he knows nothing more of me than what I told him, and what I now tell you.’

‘Why, this is well enough, Sir Robert!’ said Glossin. ‘I suppose he would bring forward this thick-skulled fellow to give his oath of credulity, Sir Robert, ha, ha, ha!’

‘And what is your other witness, friend?’ said the Baronet.

‘A gentleman whom I have some reluctance to mention because of certain private reasons, but under whose command I served some time in India, and who is too much a man of honour to refuse his testimony to my character as a soldier and gentleman.’

‘And who is this doughty witness, pray, sir?’ said Sir Robert,’ some half-pay quartermaster or sergeant, I suppose?’

‘Colonel Guy Mannering, late of the---regiment, in which, as I told you, I have a troop.’

‘Colonel Guy Mannering!’ thought Glossin, ‘who the devil could have guessed this?’

‘Colonel Guy Mannering?’ echoed the Baronet, considerably shaken in his opinion. ‘My good sir,’ apart to Glossin, ‘the young man with a dreadfully plebeian name and a good deal of modest assurance has nevertheless something of the tone and manners and feeling of a gentleman, of one at least who has lived in good society; they do give commissions very loosely and carelessly and inaccurately in India. I think we had better pause till Colonel Mannering shall return; he is now, I believe, at Edinburgh.’

‘You are in every respect the best judge, Sir Robert,’ answered Glossin--’in every possible respect. I would only submit to you that we are certainly hardly entitled to dismiss this man upon an assertion which cannot be satisfied by proof, and that we shall incur a heavy responsibility by detaining him in private custody, without committing him to a public jail. Undoubtedly, however, you are the best judge, Sir Robert; and I would only say, for my own part, that I very lately incurred severe censure by detaining a person in a place which I thought perfectly secure, and under the custody of the proper

officers. The man made his escape, and I have no doubt my own character for attention and circumspection as a magistrate has in some degree suffered. I only hint this: I will join in any step you, Sir Robert, think most advisable.' But Mr. Glossin was well aware that such a hint was of power sufficient to decide the motions of his self-important but not self-relying colleague. So that Sir Robert Hazlewood summed up the business in the following speech, which proceeded partly upon the supposition of the prisoner being really a gentleman, and partly upon the opposite belief that he was a villain and an assassin:--

'Sir, Mr. Vanbeest Brown--I would call you Captain Brown if there was the least reason or cause or grounds to suppose that you are a captain, or had a troop in the very respectable corps you mention, or indeed in any other corps in his Majesty's service, as to which circumstance I beg to be understood to give no positive, settled, or unalterable judgment, declaration, or opinion,--I say, therefore, sir, Mr. Brown, we have determined, considering the unpleasant predicament in which you now stand, having been robbed, as you say, an assertion as to which I suspend my opinion, and being possessed of much and valuable treasure, and of a brass-handled cutlass besides, as to your obtaining which you will favour us with no explanation,--I say, sir, we have determined and resolved and made up our minds to commit you to jail, or rather to assign you an apartment therein, in order that you may be forthcoming upon Colonel Mannering's return from Edinburgh.'

'With humble submission, Sir Robert,' said Glossin, 'may I inquire if it is your purpose to send this young gentleman to the county jail? For if that were not your settled intention, I would take the liberty to hint that there would be less hardship in sending him to the bridewell at Portanferry, where he can be secured without public exposure, a circumstance which, on the mere chance of his story being really true, is much to be avoided.'

‘Why, there is a guard of soldiers at Portanferry, to be sure, for protection of the goods in the custom-house; and upon the whole, considering everything, and that the place is comfortable for such a place, I say, all things considered, we will commit this person, I would rather say authorise him to be detained, in the workhouse at Portanferry.’

The warrant was made out accordingly, and Bertram was informed he was next morning to be removed to his place of confinement, as Sir Robert had determined he should not be taken there under cloud of night, for fear of rescue. He was during the interval to be detained at Hazlewood House.

‘It cannot be so hard as my imprisonment by the looties in India,’ he thought; ‘nor can it last so long. But the deuce take the old formal dunderhead, and his more sly associate, who speaks always under his breath; they cannot understand a plain man’s story when it is told them.’

In the meanwhile Glossin took leave of the Baronet with a thousand respectful bows and cringing apologies for not accepting his invitation to dinner, and venturing to hope he might be pardoned in paying his respects to him, Lady Hazlewood, and young Mr. Hazlewood on some future occasion.

‘Certainly, sir,’ said the Baronet, very graciously. ‘I hope our family was never at any time deficient in civility to our neighbours; and when I ride that way, good Mr. Glossin, I will convince you of this by calling at your house as familiarly as is consistent--that is, as can be hoped or expected.’

‘And now,’ said Glossin to himself, ‘to find Dirk Hatteraick and his people, to get the guard sent off from the custom-house; and then for the grand cast of the dice. Everything must depend upon speed. How lucky that Mannering has betaken himself to Edinburgh! His knowledge of this young fellow is a most perilous addition to my dangers.’ Here he suffered his horse to slacken his pace. ‘What if I should try to compound with the heir? It’s likely he might be brought to pay a round sum for restitution, and I could give up Hatteraick. But no, no, no! there were too many eyes on me--Hatteraick himself, and

the gipsy sailor, and that old hag. No, no! I must stick to my original plan.' And with that he struck his spurs against his horse's flanks, and rode forward at a hard trot to put his machines in motion.

CHAPTER XV

A prison is a house of care,
A place where none can thrive,
A touchstone true to try a friend,
A grave for one alive
Sometimes a place of right,
Sometimes a place of wrong,
Sometimes a place of rogues and thieves,
And honest men among

Inscription on Edinburgh Tolbooth

Early on the following morning the carriage which had brought Bertram to Hazlewood House was, with his two silent and surly attendants, appointed to convey him to his place of confinement at Portanferry. This building adjoined to the custom-house established at that little seaport, and both were situated so close to the sea-beach that it was necessary to defend the back part with a large and strong rampart or bulwark of huge stones, disposed in a slope towards the surf, which often reached and broke upon them. The front was surrounded by a high wall, enclosing a small courtyard, within which the miserable inmates of the mansion were occasionally permitted to take exercise and air. The prison was used as a house of correction, and sometimes as a

Zaid n. adwan

chapel of ease to the county jail, which was old, and far from being conveniently situated with reference to the Kippletringan district of the county. Mac-Guffog, the officer by whom Bertram had at first been apprehended, and who was now in attendance upon him, was keeper of this palace of little-ease. He caused the carriage to be drawn close up to the outer gate, and got out himself to summon the warders. The noise of his rap alarmed some twenty or thirty ragged boys, who left off sailing their mimic sloops and frigates in the little pools of salt water left by the receding tide, and hastily crowded round the vehicle to see what luckless being was to be delivered to the prison-house out of 'Glossin's braw new carriage.' The door of the courtyard, after the heavy clanking of many chains and bars, was opened by Mrs. Mac-Guffog--an awful spectacle, being a woman for strength and resolution capable of maintaining order among her riotous inmates, and of administering the discipline of the house, as it was called, during the absence of her husband, or when he chanced to have taken an overdose of the creature. The growling voice of this Amazon, which rivalled in harshness the crashing music of her own bolts and bars, soon dispersed in every direction the little varlets who had thronged around her threshold, and she next addressed her amiable helpmate:--

'Be sharp, man, and get out the swell, canst thou not?'

'Hold your tongue and be d-d, you--,' answered her loving husband, with two additional epithets of great energy, but which we beg to be excused from repeating. Then addressing Bertram--'Come, will you get out, my handy lad, or must we lend you a lift?'

Bertram came out of the carriage, and, collared by the constable as he put his foot on the ground, was dragged, though he offered no resistance, across the threshold, amid the continued shouts of the little sansculottes, who looked on at such distance as their fear of Mrs. Mac-Guffog permitted. The instant his foot had crossed the fatal porch, the portress again dropped her chains, drew her bolts, and, turning with both hands an immense key, took it from the lock and thrust it into a huge side-pocket of red cloth.

Bertram was now in the small court already mentioned. Two or three prisoners were sauntering along the pavement, and deriving as it were a feeling of refreshment from the momentary glimpse with which the opening door had extended their prospect to the other side of a dirty street. Nor can this be thought surprising, when it is considered that, unless on such occasions, their view was confined to the grated front of their prison, the high and sable walls of the courtyard, the heaven above them, and the pavement beneath their feet--a sameness of landscape which, to use the poet's expression, 'lay like a load on the wearied eye,' and had fostered in some a callous and dull misanthropy, in others that sickness of the heart which induces him who is immured already in a living grave to wish for a sepulchre yet more calm and sequestered.

Mac-Guffog, when they entered the courtyard, suffered Bertram to pause for a minute and look upon his companions in affliction. When he had cast his eye around on faces on which guilt and despondence and low excess had fixed their stigma--upon the spendthrift, and the swindler, and the thief, the bankrupt debtor, the 'moping idiot, and the madman gay,' whom a paltry spirit of economy congregated to share this dismal habitation, he felt his heart recoil with inexpressible loathing from enduring the contamination of their society even for a moment.

'I hope, sir,' he said to the keeper, 'you intend to assign me a place of confinement apart?'

'And what should I be the better of that?'

'Why, sir, I can but be detained here a day or two, and it would be very disagreeable to me to mix in the sort of company this place affords.'

'And what do I care for that?'

'Why then, sir, to speak to your feelings,' said Bertram, 'I shall be willing to make you a handsome compliment for this indulgence.'

'Ay, but when, Captain? when and how? that's the question, or rather the twa questions,' said the jailor.

‘When I am delivered, and get my remittances from England,’ answered the prisoner.

Mac-Guffog shook his head incredulously.

‘Why, friend, you do not pretend to believe that I am really a malefactor?’ said Bertram.

‘Why, I no ken,’ said the fellow; ‘but if you ARE on the account, ye’re nae sharp ane, that’s the daylight o’t.’

‘And why do you say I am no sharp one?’

‘Why, wha but a crack-brained greenhorn wad hae let them keep up the siller that ye left at the Gordon Arms?’ said the constable. ‘Deil fetch me, but I wad have had it out o’ their wames! Ye had nae right to be strippit o’ your money and sent to jail without a mark to pay your fees; they might have keepit the rest o’ the articles for evidence. But why, for a blind bottle-head, did not ye ask the guineas? and I kept winking and nodding a’ the time, and the donnert deevil wad never ance look my way!’

‘Well, sir,’ replied Bertram, ‘if I have a title to have that property delivered up to me, I shall apply for it; and there is a good deal more than enough to pay any demand you can set up.’

‘I dinna ken a bit about that,’ said Mac-Guffog; ‘ye may be here lang eneugh. And then the gieing credit maun be considered in the fees. But, however, as ye DO seem to be a chap by common, though my wife says I lose by my good-nature, if ye gie me an order for my fees upon that money I daresay Glossin will make it forthcoming; I ken something about an escape from Ellangowan. Ay, ay, he’ll be glad to carry me through, and be neighbour-like.’

‘Well, sir,’ replied Bertram, ‘if I am not furnished in a day or two otherwise, you shall have such an order.’

‘Weel, weel, then ye shall be put up like a prince,’ said Mac-Guffog. ‘But mark ye me, friend, that we may have nae colly-shangie afterhend, these are the fees that I always charge a swell that must have his lib-ken to himsell:--Thirty shillings a week for

lodgings, and a guinea for garnish; half a guinea a week for a single bed; and I dinna get the whole of it, for I must gie half a crown out of it to Donald Laider that's in for sheep-stealing, that should sleep with you by rule, and he'll expect clean strae, and maybe some whisky beside. So I make little upon that.'

'Well, sir, go on.'

'Then for meat and liquor, ye may have the best, and I never charge abune twenty per cent ower tavern price for pleasing a gentleman that way; and that's little eneugh for sending in and sending out, and wearing the lassie's shoon out. And then if ye're dowie I will sit wi' you a gliff in the evening mysell, man, and help ye out wi' your bottle. I have drank mony a glass wi' Glossin, man, that did you up, though he's a justice now. And then I'se warrant ye'll be for fire thir cauld nights, or if ye want candle, that's an expensive article, for it's against the rules. And now I've tell'd ye the head articles of the charge, and I dinna think there's muckle mair, though there will aye be some odd expenses ower and abune.'

'Well, sir, I must trust to your conscience, if ever you happened to hear of such a thing; I cannot help myself.'

'Na, na, sir,' answered the cautious jailor, 'I'll no permit you to be saying that. I'm forcing naething upon ye; an ye dinna like the price, ye needna take the article. I force no man; I was only explaining what civility was. But if ye like to take the common run of the house, it's a' ane to me; I'll be saved trouble, that's a'.'

'Nay, my friend, I have, as I suppose you may easily guess, no inclination to dispute your terms upon such a penalty,' answered Bertram. 'Come, show me where I am to be, for I would fain be alone for a little while.'

'Ay, ay, come along then, Captain,' said the fellow, with a contortion of visage which he intended to be a smile; 'and I'll tell you now--to show you that I HAVE a conscience, as ye ca't--d--n me if I charge ye abune six-pence a day for the freedom o' the court,

and ye may walk in't very near three hours a day, and play at pitch-and-toss and hand ba' and what not.'

With this gracious promise he ushered Bertram into the house, and showed him up a steep and narrow stone staircase, at the top of which was a strong door, clenched with iron and studded with nails. Beyond this door was a narrow passage or gallery, having three cells on each side, wretched vaults, with iron bed-frames and straw mattresses. But at the farther end was a small apartment of rather a more decent appearance, that is, having less the air of a place of confinement, since, unless for the large lock and chain upon the door, and the crossed and ponderous stanchions upon the window, it rather resembled the 'worst inn's worst room.' It was designed as a sort of infirmary for prisoners whose state of health required some indulgence; and, in fact, Donald Laider, Bertram's destined chum, had been just dragged out of one of the two beds which it contained, to try whether clean straw and whisky might not have a better chance to cure his intermitting fever. This process of ejection had been carried into force by Mrs. Mac-Guffog while her husband parleyed with Bertram in the courtyard, that good lady having a distinct presentiment of the manner in which the treaty must necessarily terminate. Apparently the expulsion had not taken place without some application of the strong hand, for one of the bed-posts of a sort of tent-bed was broken down, so that the tester and curtains hung forward into the middle of the narrow chamber, like the banner of a chieftain half-sinking amid the confusion of a combat.

'Never mind that being out o' sorts, Captain,' said Mrs. Mac-Guffog, who now followed them into the room; then, turning her back to the prisoner, with as much delicacy as the action admitted, she whipped from her knee her ferret garter, and applied it to splicing and fastening the broken bed-post; then used more pins than her apparel could well spare to fasten up the bed-curtains in festoons; then shook the bed-clothes into something like form; then flung over all a tattered patch-work quilt, and pronounced that things were now 'something purpose-like.' 'And there's your bed,

Captain,' pointing to a massy four-posted hulk, which, owing to the inequality of the floor, that had sunk considerably (the house, though new, having been built by contract), stood on three legs, and held the fourth aloft as if pawing the air, and in the attitude of advancing like an elephant passant upon the panel of a coach,--'there's your bed and the blankets; but if ye want sheets, or bowster, or pillow, or ony sort o' nappery for the table, or for your hands, ye 'll hae to speak to me about it, for that's out o' the gudeman's line (Mac-Guffog had by this time left the room, to avoid, probably, any appeal which might be made to him upon this new exaction), and he never engages for ony thing like that.'

'In God's name,' said Bertram, 'let me have what is decent, and make any charge you please.'

'Aweel, aweel, that's sune settled; we'll no excise you neither, though we live sae near the custom-house. And I maun see to get you some fire and some dinner too, I'se warrant; but your dinner will be but a puir ane the day, no expecting company that would be nice and fashious.' So saying, and in all haste, Mrs. Mac-Guffog fetched a scuttle of live coals, and having replenished 'the rusty grate, unconscious of a fire' for months before, she proceeded with unwashed hands to arrange the stipulated bed-linen (alas, how different from Ailie Dinmont's!), and, muttering to herself as she discharged her task, seemed, in inveterate spleen of temper, to grudge even those accommodations for which she was to receive payment. At length, however, she departed, grumbling between her teeth, that 'she wad rather lock up a haill ward than be fiking about thae niff-naffy gentles that gae sae muckle fash wi' their fancies.'

When she was gone Bertram found himself reduced to the alternative of pacing his little apartment for exercise, or gazing out upon the sea in such proportions as could be seen from the narrow panes of his window, obscured by dirt and by close iron bars, or reading over the records of brutal wit and blackguardism which despair had scrawled upon the half-whitened walls. The sounds were as uncomfortable as the objects of sight;

the sullen dash of the tide, which was now retreating, and the occasional opening and shutting of a door, with all its accompaniments of jarring bolts and creaking hinges, mingling occasionally with the dull monotony of the retiring ocean. Sometimes, too, he could hear the hoarse growl of the keeper, or the shriller strain of his helpmate, almost always in the tone of discontent, anger, or insolence. At other times the large mastiff chained in the courtyard answered with furious bark the insults of the idle loiterers who made a sport of incensing him.

At length the tedium of this weary space was broken by the entrance of a dirty-looking serving-wench, who made some preparations for dinner by laying a half-dirty cloth upon a whole-dirty deal table. A knife and fork, which had not been worn out by overcleaning, flanked a cracked delf plate; a nearly empty mustard-pot, placed on one side of the table, balanced a salt-cellar, containing an article of a greyish, or rather a blackish, mixture, upon the other, both of stoneware, and bearing too obvious marks of recent service. Shortly after, the same Hebe brought up a plate of beef-collops, done in the frying-pan, with a huge allowance of grease floating in an ocean of lukewarm water; and, having added a coarse loaf to these savoury viands, she requested to know what liquors the gentleman chose to order. The appearance of this fare was not very inviting; but Bertram endeavoured to mend his commons by ordering wine, which he found tolerably good, and, with the assistance of some indifferent cheese, made his dinner chiefly off the brown loaf. When his meal was over the girl presented her master's compliments, and, if agreeable to the gentleman, he would help him to spend the evening. Bertram desired to be excused, and begged, instead of this gracious society, that he might be furnished with paper, pen, ink, and candles. The light appeared in the shape of one long broken tallow-candle, inclining over a tin candlestick coated with grease; as for the writing materials, the prisoner was informed that he might have them the next day if he chose to send out to buy them. Bertram next desired the maid to procure him a book, and enforced his request with a shilling; in consequence of which, after long absence, she reappeared with two odd volumes of the 'Newgate Calendar,'

which she had borrowed from Sam Silverquill, an idle apprentice, who was imprisoned under a charge of forgery. Having laid the books on the table she retired, and left Bertram to studies which were not ill adapted to his present melancholy situation.

CHAPTER XVI

But if thou shouldst be dragg'd in scorn
To yonder ignominious tree,
Thou shall not want one faithful friend
To share the cruel fates' decree.

SHENSTONE.

Plunged in the gloomy reflections which were naturally excited by his dismal reading and disconsolate situation, Bertram for the first time in his life felt himself affected with a disposition to low spirits. 'I have been in worse situations than this too,' he said; 'more dangerous, for here is no danger; more dismal in prospect, for my present confinement must necessarily be short; more intolerable for the time, for here, at least, I have fire, food, and shelter. Yet, with reading these bloody tales of crime and misery in a place so corresponding to the ideas which they excite, and in listening to these sad sounds, I feel a stronger disposition to melancholy than in my life I ever experienced. But I will not give way to it. Begone, thou record of guilt and infamy!' he said, flinging the book upon the spare bed; 'a Scottish jail shall not break, on the very first day, the spirits which have resisted climate, and want, and penury, and disease, and imprisonment in a

foreign land. I have fought many a hard battle with Dame Fortune, and she shall not beat me now if I can help it.'

Then bending his mind to a strong effort, he endeavoured to view his situation in the most favourable light. Delaserre must soon be in Scotland; the certificates from his commanding officer must soon arrive; nay, if Mannering were first applied to, who could say but the effect might be a reconciliation between them? He had often observed, and now remembered, that when his former colonel took the part of any one, it was never by halves, and that he seemed to love those persons most who had lain under obligation to him. In the present case a favour, which could be asked with honour and granted with readiness, might be the means of reconciling them to each other. From this his feelings naturally turned towards Julia; and, without very nicely measuring the distance between a soldier of fortune, who expected that her father's attestation would deliver him from confinement, and the heiress of that father's wealth and expectations, he was building the gayest castle in the clouds, and varnishing it with all the tints of a summer-evening sky, when his labour was interrupted by a loud knocking at the outer gate, answered by the barking of the gaunt half-starved mastiff which was quartered in the courtyard as an addition to the garrison. After much scrupulous precaution the gate was opened and some person admitted. The house-door was next unbarred, unlocked, and unchained, a dog's feet pattered upstairs in great haste, and the animal was heard scratching and whining at the door of the room. Next a heavy step was heard lumbering up, and Mac-Guffog's voice in the character of pilot--'This way, this way; take care of the step; that's the room.' Bertram's door was then unbolted, and to his great surprise and joy his terrier, Wasp, rushed into the apartment and almost devoured him with caresses, followed by the massy form of his friend from Charlie's Hope.

'Eh whow! Eh whow!' ejaculated the honest farmer, as he looked round upon his friend's miserable apartment and wretched accommodation--'What's this o't! what's this o't!'

‘Just a trick of fortune, my good friend,’ said Bertram, rising and shaking him heartily by the hand, ‘that’s all.’

‘But what will be done about it? or what CAN be done about it?’ said honest Dandie. ‘Is’t for debt, or what is’t for?’

‘Why, it is not for debt,’ answered Bertram; ‘and if you have time to sit down, I’ll tell you all I know of the matter myself.’

‘If I hae time?’ said Dandie, with an accent on the word that sounded like a howl of derision. ‘Ou, what the deevil am I come here for, man, but just ance errand to see about it? But ye’ll no be the waur o’ something to eat, I trow; it’s getting late at e’en. I tell’d the folk at the Change, where I put up Dumple, to send ower my supper here, and the chield Mac-Guffog is agreeable to let it in; I hae settled a’ that. And now let’s hear your story. Whisht, Wasp, man! wow, but he’s glad to see you, poor thing!’

Bertram’s story, being confined to the accident of Hazlewood, and the confusion made between his own identity and that of one of the smugglers who had been active in the assault of Woodbourne, and chanced to bear the same name, was soon told. Dinmont listened very attentively. ‘Aweel,’ he said, ‘this suld be nae sic dooms desperate business surely; the lad’s doing weel again that was hurt, and what signifies twa or three lead draps in his shouther? if ye had putten out his ee it would hae been another case. But eh, as I wuss auld Sherra Pleydell was to the fore here! Od, he was the man for sorting them, and the queerest rough-spoken deevil too that ever ye heard!’

‘But now tell me, my excellent friend, how did you find out I was here?’

‘Od, lad, queerly eneugh,’ said Dandie; ‘but I’ll tell ye that after we are done wi’ our supper, for it will maybe no be sae weel to speak about it while that lang-lugged limmer o’ a lass is gaun flisking in and out o’ the room.’

Bertram’s curiosity was in some degree put to rest by the appearance of the supper which his friend had ordered, which, although homely enough, had the appetising cleanliness in which Mrs. Mac-Guffog’s cookery was so eminently deficient. Dinmont

also, premising he had ridden the whole day since breakfast-time without tasting anything ‘to speak of,’ which qualifying phrase related to about three pounds of cold roast mutton which he had discussed at his mid-day stage--Dinmont, I say, fell stoutly upon the good cheer, and, like one of Homer’s heroes, said little, either good or bad, till the rage of thirst and hunger was appeased. At length, after a draught of home-brewed ale, he began by observing, ‘Aweel, aweel, that hen,’ looking upon the lamentable relics of what had been once a large fowl, ‘wasna a bad ane to be bred at a town end, though it’s no like our barn-door chuckies at Charlie’s Hope; and I am glad to see that this vexing job hasna taen awa your appetite, Captain.’

‘Why, really, my dinner was not so excellent, Mr. Dinmont, as to spoil my supper.’

‘I daresay no, I daresay no,’ said Dandie. ‘But now, hinny, that ye hae brought us the brandy, and the mug wi’ the het water, and the sugar, and a’ right, ye may steek the door, ye see, for we wad hae some o’ our ain cracks.’ The damsel accordingly retired and shut the door of the apartment, to which she added the precaution of drawing a large bolt on the outside.

As soon as she was gone Dandie reconnoitred the premises, listened at the key-hole as if he had been listening for the blowing of an otter, and, having satisfied himself that there were no eavesdroppers, returned to the table; and, making himself what he called a gey stiff cheerer, poked the fire, and began his story in an undertone of gravity and importance not very usual with him.

‘Ye see, Captain, I had been in Edinbro’ for twa or three days, looking after the burial of a friend that we hae lost, and maybe I suld hae had something for my ride; but there’s disappointments in a’ things, and wha can help the like o’ that? And I had a wee bit law business besides, but that’s neither here nor there. In short, I had got my matters settled, and hame I cam; and the morn awa to the muirs to see what the herds had been about, and I thought I might as weel gie a look to the Touthope Head, where Jock o’ Dawston and me has the outcast about a march. Weel, just as I was coming upon the bit, I saw a

man afore me that I kenn'd was nane o' our herds, and it's a wild bit to meet ony other body, so when I cam up to him it was Tod Gabriel, the fox-hunter. So I says to him, rather surprised like, "What are ye doing up amang the craws here, without your hounds, man? are ye seeking the fox without the dogs?" So he said, "Na, gudeman, but I wanted to see yoursell."

'"Ay," said I, "and ye'll be wanting eilding now, or something to pit ower the winter?"

'"Na, na," quo' he, "it's no that I'm seeking; but ye tak an unco concern in that Captain Brown that was staying wi' you, d'ye no?"

'"Troth do I, Gabriel," says I; "and what about him, lad?"

'Says he, "There's mair tak an interest in him than you, and some that I am bound to obey; and it's no just on my ain will that I'm here to tell you something about him that will no please you."

'"Faith, naething will please me," quo' I, "that's no pleasing to him."

'"And then," quo' he, "ye'll be ill-sorted to hear that he's like to be in the prison at Portanferry, if he disna tak a' the better care o' himsell, for there's been warrants out to tak him as soon as he comes ower the water frae Allonby. And now, gudeman, an ever ye wish him weel, ye maun ride down to Portanferry, and let nae grass grow at the nag's heels; and if ye find him in confinement, ye maun stay beside him night and day for a day or twa, for he'll want friends that hae baith heart and hand; and if ye neglect this ye'll never rue but ance, for it will be for a' your life."

'"But, safe us, man," quo' I, "how did ye learn a' this? it's an unco way between this and Portanferry."

'"Never ye mind that," quo' he, "them that brought us the news rade night and day, and ye maun be aff instantly if ye wad do ony gude; and sae I have naething mair to tell ye." Sae he sat himsell doun and hirselled doun into the glen, where it wad hae been ill following him wi' the beast, and I cam back to Charlie's Hope to tell the gudewife, for

I was uncertain what to do. It wad look unco-like, I thought, just to be sent out on a hunt-the-gowk errand wi' a landlouper like that. But, Lord! as the gudewife set up her throat about it, and said what a shame it wad be if ye was to come to ony wrang, an I could help ye; and then in cam your letter that confirmed it. So I took to the kist, and out wi' the pickle notes in case they should be needed, and a' the bairns ran to saddle Dumple. By great luck I had taen the other beast to Edinbro', sae Dumple was as fresh as a rose. Sae aff I set, and Wasp wi' me, for ye wad really hae thought he kenn'd where I was gaun, puir beast; and here I am after a trot o' sixty mile or near by. But Wasp rade thirty o' them afore me on the saddle, and the puir doggie balanced itsell as ane of the weans wad hae dune, whether I trotted or cantered.'

In this strange story Bertram obviously saw, supposing the warning to be true, some intimation of danger more violent and imminent than could be likely to arise from a few days' imprisonment. At the same time it was equally evident that some unknown friend was working in his behalf. 'Did you not say,' he asked Dinmont, 'that this man Gabriel was of gipsy blood?'

'It was e'en judged sae,' said Dinmont, 'and I think this maks it likely; for they aye ken where the gangs o' ilk ither are to be found, and they can gar news flee like a footba' through the country an they like. An' I forgat to tell ye, there's been an unco inquiry after the auld wife that we saw in Bewcastle; the Sheriff's had folk ower the Limestane Edge after her, and down the Hermitage and Liddel, and a' gates, and a reward offered for her to appear o' fifty pound sterling, nae less; and Justice Forster, he's had out warrants, as I am tell'd, in Cumberland; and an unco ranging and ripeing they have had a' gates seeking for her; but she'll no be taen wi' them unless she likes, for a' that.'

'And how comes that?' said Bertram.

'Ou, I dinna ken; I daur say it's nonsense, but they say she has gathered the fern-seed, and can gang ony gate she likes, like Jock the Giant-killer in the ballant, wi' his coat o' darkness and his shoon o' swiftness. Ony way she's a kind o' queen amang the gipsies;

she is mair than a hundred year auld, folk say, and minds the coming in o' the moss-troopers in the troublesome times when the Stuarts were put awa. Sae, if she canna hide hersell, she kens them that can hide her weel eneugh, ye needna doubt that. Od, an I had kenn'd it had been Meg Merrilies yon night at Tibb Mumps's, I wad taen care how I crossed her.'

Bertram listened with great attention to this account, which tallied so well in many points with what he had himself seen of this gipsy sibyl. After a moment's consideration he concluded it would be no breach of faith to mention what he had seen at Derncleugh to a person who held Meg in such reverence as Dinmont obviously did. He told his story accordingly, often interrupted by ejaculations, such as, 'Weel, the like o' that now!' or, 'Na, deil an that's no something now!'

When our Liddesdale friend had heard the whole to an end, he shook his great black head--'Weel, I'll uphaud there's baith gude and ill amang the gipsies, and if they deal wi' the Enemy, it's a' their ain business and no ours. I ken what the streeking the corpse wad be, weel eneugh. Thae smuggler deevils, when ony o' them's killed in a fray, they 'll send for a wife like Meg far eneugh to dress the corpse; od, it's a' the burial they ever think o'! and then to be put into the ground without ony decency, just like dogs. But they stick to it, that they 'll be streekit, and hae an auld wife when they're dying to rhyme ower prayers, and ballants, and charms, as they ca' them, rather than they'll hae a minister to come and pray wi' them--that's an auld threep o' theirs; and I am thinking the man that died will hae been ane o' the folk that was shot when they burnt Woodbourne.'

'But, my good friend, Woodbourne is not burnt,' said Bertram.

'Weel, the better for them that bides in't,' answered the store-farmer. 'Od, we had it up the water wi' us that there wasna a stane on the tap o' anither. But there was fighting, ony way; I daur to say it would be fine fun! And, as I said, ye may take it on trust that that's been ane o' the men killed there, and that it's been the gipsies that took your

pockmanky when they fand the chaise stickin' in the snaw; they wadna pass the like o' that, it wad just come to their hand like the bowl o' a pint stoup.'

'But if this woman is a sovereign among them, why was she not able to afford me open protection, and to get me back my property?'

'Ou, wha kens? she has muckle to say wi' them, but whiles they'll tak their ain way for a' that, when they're under temptation. And then there's the smugglers that they're aye leagued wi', she maybe couldna manage them sae weel. They're aye banded thegither; I've heard that the gipsies ken when the smugglers will come aff, and where they're to land, better than the very merchants that deal wi' them. And then, to the boot o' that, she's whiles cracked-brained, and has a bee in her head; they say that, whether her spaeings and fortune-tellings be true or no, for certain she believes in them a' hersell, and is aye guiding hersell by some queer prophecy or anither. So she disna aye gang the straight road to the well. But deil o' sic a story as yours, wi' glamour and dead folk and losing ane's gate, I ever heard out o' the tale-books! But whisht, I hear the keeper coming.'

Mac-Guffog accordingly interrupted their discourse by the harsh harmony of the bolts and bars, and showed his bloated visage at the opening door. 'Come, Mr. Dinmont, we have put off locking up for an hour to oblige ye; ye must go to your quarters.'

'Quarters, man? I intend to sleep here the night. There's a spare bed in the Captain's room.'

'It's impossible!' answered the keeper.

'But I say it IS possible, and that I winna stir; and there's a dram t' ye.'

Mac-Guffog drank off the spirits and resumed his objection. 'But it's against rule, sir; ye have committed nae malefaction.'

'I'll break your head,' said the sturdy Liddesdale man, 'if ye say ony mair about it, and that will be malefaction eneugh to entitle me to ae night's lodging wi' you, ony way.'

‘But I tell ye, Mr. Dinmont,’ reiterated the keeper, ‘it’s against rule, and I behoved to lose my post.’

‘Weel, Mac-Guffog,’ said Dandie, ‘I hae just twa things to say. Ye ken wha I am weel eneugh, and that I wadna loose a prisoner.’

‘And how do I ken that?’ answered the jailor.

‘Weel, if ye dinna ken that,’ said the resolute farmer, ‘ye ken this: ye ken ye’re whiles obliged to be up our water in the way o’ your business. Now, if ye let me stay quietly here the night wi’ the Captain, I’se pay ye double fees for the room; and if ye say no, ye shall hae the best sark-fu’ o’ sair banes that ever ye had in your life the first time ye set a foot by Liddel Moat!’

‘Aweel, aweel, gudeman,’ said Mac-Guffog, ‘a wilfu’ man maun hae his way; but if I am challenged for it by the justices, I ken wha sall bear the wyte,’ and, having sealed this observation with a deep oath or two, he retired to bed, after carefully securing all the doors of the bridewell. The bell from the town steeple tolled nine just as the ceremony was concluded.

‘Although it’s but early hours,’ said the farmer, who had observed that his friend looked somewhat pale and fatigued, ‘I think we had better lie down, Captain, if ye’re no agreeable to another cheerer. But troth, ye’re nae glass-breaker; and neither am I, unless it be a screed wi’ the neighbours, or when I’m on a ramble.’

Bertram readily assented to the motion of his faithful friend, but, on looking at the bed, felt repugnance to trust himself undressed to Mrs. Mac-Guffog’s clean sheets.

‘I’m muckle o’ your opinion, Captain,’ said Dandie. ‘Od, this bed looks as if a’ the colliers in Sanquhar had been in’t thegither. But it’ll no win through my muckle coat.’ So saying, he flung himself upon the frail bed with a force that made all its timbers crack, and in a few moments gave audible signal that he was fast asleep. Bertram slipped off his coat and boots and occupied the other dormitory. The strangeness of his destiny, and the mysteries which appeared to thicken around him, while he seemed alike to be

persecuted and protected by secret enemies and friends, arising out of a class of people with whom he had no previous connexion, for some time occupied his thoughts. Fatigue, however, gradually composed his mind, and in a short time he was as fast asleep as his companion. And in this comfortable state of oblivion we must leave them until we acquaint the reader with some other circumstances which occurred about the same period.

CHAPTER XVII

Say from whence
You owe this strange intelligence? or why
Upon this blasted heath you stop our way
With such prophetic greeting?
Speak, I charge you.

Macbeth.

Upon the evening of the day when Bertram's examination had taken place, Colonel Mannering arrived at Woodbourne from Edinburgh. He found his family in their usual state, which probably, so far as Julia was concerned, would not have been the case had she learned the news of Bertram's arrest. But as, during the Colonel's absence, the two young ladies lived much retired, this circumstance fortunately had not reached Woodbourne. A letter had already made Miss Bertram acquainted with the downfall of the expectations which had been formed upon the bequest of her kinswoman. Whatever hopes that news might have dispelled, the disappointment did not prevent her from

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joining her friend in affording a cheerful reception to the Colonel, to whom she thus endeavoured to express the deep sense she entertained of his paternal kindness. She touched on her regret that at such a season of the year he should have made, upon her account, a journey so fruitless.

'That it was fruitless to you, my dear,' said the Colonel, 'I do most deeply lament; but for my own share, I have made some valuable acquaintances, and have spent the time I have been absent in Edinburgh with peculiar satisfaction; so that on that score there is nothing to be regretted. Even our friend the Dominie is returned thrice the man he was, from having sharpened his wits in controversy with the geniuses of the northern metropolis.'

'Of a surety,' said the Dominie, with great complacency, 'I did wrestle, and was not overcome, though my adversary was cunning in his art.'

'I presume,' said Miss Mannering, 'the contest was somewhat fatiguing, Mr. Sampson?'

'Very much, young lady; howbeit I girded up my loins and strove against him.'

'I can bear witness,' said the Colonel; 'I never saw an affair better contested. The enemy was like the Mahratta cavalry: he assailed on all sides, and presented no fair mark for artillery; but Mr. Sampson stood to his guns notwithstanding, and fired away, now upon the enemy and now upon the dust which he had raised. But we must not fight our battles over again to-night; to-morrow we shall have the whole at breakfast.'

The next morning at breakfast, however, the Dominie did not make his appearance. He had walked out, a servant said, early in the morning. It was so common for him to forget his meals that his absence never deranged the family. The housekeeper, a decent old-fashioned Presbyterian matron, having, as such, the highest respect for Sampson's theological acquisitions, had it in charge on these occasions to take care that he was no sufferer by his absence of mind, and therefore usually waylaid him on his return, to remind him of his sublunary wants, and to minister to their relief. It seldom, however,

happened that he was absent from two meals together, as was the case in the present instance. We must explain the cause of this unusual occurrence.

The conversation which Mr. Pleydell had held with Mr. Mannering on the subject of the loss of Harry Bertram had awakened all the painful sensations which that event had inflicted upon Sampson. The affectionate heart of the poor Dominie had always reproached him that his negligence in leaving the child in the care of Frank Kennedy had been the proximate cause of the murder of the one, the loss of the other, the death of Mrs. Bertram, and the ruin of the family of his patron. It was a subject which he never conversed upon, if indeed his mode of speech could be called conversation at any time; but it was often present to his imagination. The sort of hope so strongly affirmed and asserted in Mrs. Bertram's last settlement had excited a corresponding feeling in the Dominie's bosom, which was exasperated into a sort of sickening anxiety by the discredit with which Pleydell had treated it. 'Assuredly,' thought Sampson to himself, 'he is a man of erudition, and well skilled in the weighty matters of the law; but he is also a man of humorous levity and inconsistency of speech, and wherefore should he pronounce ex cathedra, as it were, on the hope expressed by worthy Madam Margaret Bertram of Singleside?'

All this, I say, the Dominie THOUGHT to himself; for had he uttered half the sentence, his jaws would have ached for a month under the unusual fatigue of such a continued exertion. The result of these cogitations was a resolution to go and visit the scene of the tragedy at Warroch Point, where he had not been for many years; not, indeed, since the fatal accident had happened. The walk was a long one, for the Point of Warroch lay on the farther side of the Ellangowan property, which was interposed between it and Woodbourne. Besides, the Dominie went astray more than once, and met with brooks swoln into torrents by the melting of the snow, where he, honest man, had only the summer recollection of little trickling rills.

At length, however, he reached the woods which he had made the object of his excursion, and traversed them with care, muddling his disturbed brains with vague efforts to recall every circumstance of the catastrophe. It will readily be supposed that the influence of local situation and association was inadequate to produce conclusions different from those which he had formed under the immediate pressure of the occurrences themselves. ‘With many a weary sigh, therefore, and many a groan,’ the poor Dominie returned from his hopeless pilgrimage, and weariedly plodded his way towards Woodbourne, debating at times in his altered mind a question which was forced upon him by the cravings of an appetite rather of the keenest, namely, whether he had breakfasted that morning or no? It was in this twilight humour, now thinking of the loss of the child, then involuntarily compelled to meditate upon the somewhat incongruous subject of hung beef, rolls, and butter, that his route, which was different from that which he had taken in the morning, conducted him past the small ruined tower, or rather vestige of a tower, called by the country people the Kaim of Derncleugh.

The reader may recollect the description of this ruin in the twenty-seventh chapter, as the vault in which young Bertram, under the auspices of Meg Merrilies, witnessed the death of Hatteraick’s lieutenant. The tradition of the country added ghostly terrors to the natural awe inspired by the situation of this place, which terrors the gipsies who so long inhabited the vicinity had probably invented, or at least propagated, for their own advantage. It was said that, during the times of the Galwegian independence, one Hanlon Mac-Dingawaie, brother to the reigning chief, Knarth Mac-Dingawaie, murdered his brother and sovereign, in order to usurp the principality from his infant nephew, and that, being pursued for vengeance by the faithful allies and retainers of the house, who espoused the cause of the lawful heir, he was compelled to retreat, with a few followers whom he had involved in his crime, to this impregnable tower called the Kaim of Derucleugh, where he defended himself until nearly reduced by famine, when, setting fire to the place, he and the small remaining garrison desperately perished by their own swords, rather than fall into the hands of their exasperated enemies. This

tragedy, which, considering the wild times wherein it was placed, might have some foundation in truth, was larded with many legends of superstition and diablerie, so that most of the peasants of the neighbourhood, if benighted, would rather have chosen to make a considerable circuit than pass these haunted walls. The lights, often seen around the tower, when used as the rendezvous of the lawless characters by whom it was occasionally frequented, were accounted for, under authority of these tales of witchery, in a manner at once convenient for the private parties concerned and satisfactory to the public.

Now it must be confessed that our friend Sampson, although a profound scholar and mathematician, had not travelled so far in philosophy as to doubt the reality of witchcraft or apparitions. Born, indeed, at a time when a doubt in the existence of witches was interpreted as equivalent to a justification of their infernal practices, a belief of such legends had been impressed upon the Dominie as an article indivisible from his religious faith, and perhaps it would have been equally difficult to have induced him to doubt the one as the other. With these feelings, and in a thick misty day, which was already drawing to its close, Dominie Sampson did not pass the Kaim of Derncleugh without some feelings of tacit horror.

What, then, was his astonishment when, on passing the door--that door which was supposed to have been placed there by one of the latter Lairds of Ellangowan to prevent presumptuous strangers from incurring the dangers of the haunted vault--that door, supposed to be always locked, and the key of which was popularly said to be deposited with the presbytery--that door, that very door, opened suddenly, and the figure of Meg Merrilies, well known, though not seen for many a revolving year, was placed at once before the eyes of the startled Dominie! She stood immediately before him in the footpath, confronting him so absolutely that he could not avoid her except by fairly turning back, which his manhood prevented him from thinking of.

‘I kenn’d ye wad be here,’ she said, with her harsh and hollow voice; ‘I ken wha ye seek; but ye maun do my bidding.’

‘Get thee behind me!’ said the alarmed Dominie. ‘Avoid ye! Conjuro te, scelestissima, nequissima, spurcissima, iniquissima atque miserrima, conjuro te!!!’

Meg stood her ground against this tremendous volley of superlatives, which Sampson hawked up from the pit of his stomach and hurled at her in thunder. ‘Is the carl daft,’ she said, ‘wi’ his glamour?’

‘Conjuro,’ continued the Dominie, ‘abjuro, contestor atque viriliter impero tibi!’

‘What, in the name of Sathan, are ye feared for, wi’ your French gibberish, that would make a dog sick? Listen, ye stickit stibbler, to what I tell ye, or ye sail rue it while there’s a limb o’ ye hings to anither! Tell Colonel Mannering that I ken he’s seeking me. He kens, and I ken, that the blood will be wiped out, and the lost will be found,

And Bertram’s right and Bertram’s might
Shall meet on Ellangowan height.

Hae, there’s a letter to him; I was gaun to send it in another way. I canna write mysell; but I hae them that will baith write and read, and ride and rin for me. Tell him the time’s coming now, and the weird’s dreed, and the wheel’s turning. Bid him look at the stars as he has looked at them before. Will ye mind a’ this?’

‘Assuredly,’ said the Dominie, ‘I am dubious; for, woman, I am perturbed at thy words, and my flesh quakes to hear thee.’

‘They’ll do you nae ill though, and maybe muckle gude.’

‘Avoid ye! I desire no good that comes by unlawful means.’

‘Fule body that thou art,’ said Meg, stepping up to him, with a frown of indignation that made her dark eyes flash like lamps from under her bent brows--’Fule body! if I meant ye wrang, couldna I clod ye ower that craig, and wad man ken how ye cam by your end mair than Frank Kennedy? Hear ye that, ye worricow?’

‘In the name of all that is good,’ said the Dominie, recoiling, and pointing his long pewter-headed walking cane like a javelin at the supposed sorceress--’in the name of all that is good, bide off hands! I will not be handled; woman, stand off, upon thine own proper peril! Desist, I say; I am strong; lo, I will resist!’ Here his speech was cut short; for Meg, armed with supernatural strength (as the Dominie asserted), broke in upon his guard, put by a thrust which he made at her with his cane, and lifted him into the vault, ‘as easily,’ said he, ‘as I could sway a Kitchen’s Atlas.’

‘Sit down there,’ she said, pushing the half-throttled preacher with some violence against a broken chair--’sit down there and gather your wind and your senses, ye black barrow-tram o’ the kirk that ye are. Are ye fou or fasting?’

‘Fasting, from all but sin,’ answered the Dominie, who, recovering his voice, and finding his exorcisms only served to exasperate the intractable sorceress, thought it best to affect complaisance and submission, inwardly conning over, however, the wholesome conjurations which he durst no longer utter aloud. But as the Dominie’s brain was by no means equal to carry on two trains of ideas at the same time, a word or two of his mental exercise sometimes escaped and mingled with his uttered speech in a manner ludicrous enough, especially as the poor man shrunk himself together after every escape of the kind, from terror of the effect it might produce upon the irritable feelings of the witch.

Meg in the meanwhile went to a great black cauldron that was boiling on a fire on the floor, and, lifting the lid, an odour was diffused through the vault which, if the vapours of a witch’s cauldron could in aught be trusted, promised better things than the hell-broth which such vessels are usually supposed to contain. It was, in fact, the savour of a goodly stew, composed of fowls, hares, partridges, and moor-game boiled in a large mess with potatoes, onions, and leeks, and from the size of the cauldron appeared to be prepared for half a dozen of people at least. ‘So ye hae eat naething a’ day?’ said Meg,

heaving a large portion of this mess into a brown dish and strewing it savourily with salt and pepper. [Footnote: See Note 4.]

‘Nothing,’ answered the Dominie, ‘scelestissima!--that is, gudewife.’

‘Hae then,’ said she, placing the dish before him, ‘there’s what will warm your heart.’

‘I do not hunger, malefica--that is to say, Mrs. Merrilies!’ for he said unto himself,’ the savour is sweet, but it hath been cooked by a Canidia or an Ericthoe.’

‘If ye dinna eat instantly and put some saul in ye, by the bread and the salt, I’ll put it down your throat wi’ the cutty spoon, scaulding as it is, and whether ye will or no. Gape, sinner, and swallow!’

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ENLARGE

Sampson, afraid of eye of newt, and toe of frog, tigers' chaudrons, and so forth, had determined not to venture; but the smell of the stew was fast melting his obstinacy, which flowed from his chops as it were in streams of water, and the witch's threats decided him to feed. Hunger and fear are excellent casuists.

'Saul,' said Hunger, 'feasted with the witch of Endor.' 'And,' quoth Fear, 'the salt which she sprinkled upon the food showeth plainly it is not a necromantic banquet, in which that seasoning never occurs.' 'And, besides,' says Hunger, after the first spoonful, 'it is savoury and refreshing viands.'

'So ye like the meat?' said the hostess.

‘Yea,’ answered the Dominie, ‘and I give thee thanks, sceleratissima!--which means, Mrs. Margaret.’

‘Aweel, eat your fill; but an ye kenn’d how it was gotten ye maybe wadna like it sae weel.’ Sampson’s spoon dropped in the act of conveying its load to his mouth. ‘There’s been mony a moonlight watch to bring a’ that trade thegither,’ continued Meg; ‘the folk that are to eat that dinner thought little o’ your game laws.’

‘Is that all?’ thought Sampson, resuming his spoon and shovelling away manfully; ‘I will not lack my food upon that argument.’

‘Now ye maun tak a dram?’

‘I will,’ quoth Sampson, ‘conjuro te--that is, I thank you heartily,’ for he thought to himself, in for a penny in for a pound; and he fairly drank the witch’s health in a cupful of brandy. When he had put this copestone upon Meg’s good cheer, he felt, as he said, ‘mightily elevated, and afraid of no evil which could befall unto him.’

‘Will ye remember my errand now?’ said Meg Merrilies; ‘I ken by the cast o’ your ee that ye’re anither man than when you cam in.’

‘I will, Mrs. Margaret,’ repeated Sampson, stoutly; ‘I will deliver unto him the sealed epistle, and will add what you please to send by word of mouth.’

‘Then I’ll make it short,’ says Meg. ‘Tell him to look at the stars without fail this night, and to do what I desire him in that letter, as he would wish

That Bertram’s right and Bertram’s might
Should meet on Ellangowan height.

I have seen him twice when he saw na me; I ken when he was in this country first, and I ken what’s brought him back again. Up an’ to the gate! ye’re ower lang here; follow me.’

Sampson followed the sibyl accordingly, who guided him about a quarter of a mile through the woods, by a shorter cut than he could have found for himself; then they

entered upon the common, Meg still marching before him at a great pace, until she gained the top of a small hillock which overhung the road.

'Here,' she said, 'stand still here. Look how the setting sun breaks through yon cloud that's been darkening the lift a' day. See where the first stream o' light fa's: it's upon Donagild's round tower, the auldest tower in the Castle o' Ellangowan; that's no for naething! See as it's glooming to seaward abune yon sloop in the bay; that's no for naething neither. Here I stood on this very spot,' said she, drawing herself up so as not to lose one hair-breadth of her uncommon height, and stretching out her long sinewy arm and clenched hand--'here I stood when I tauld the last Laird o' Ellangowan what was coming on his house; and did that fa' to the ground? na, it hit even ower sair! And here, where I brake the wand of peace ower him, here I stand again, to bid God bless and prosper the just heir of Ellangowan that will sune be brought to his ain; and the best laird he shall be that Ellangowan has seen for three hundred years. I'll no live to see it, maybe; but there will be mony a blythe ee see it though mine be closed. And now, Abel Sampson, as ever ye lo'ed the house of Ellangowan, away wi' my message to the English Colonel, as if life and death were upon your haste!'

So saying, she turned suddenly from the amazed Dominie and regained with swift and long strides the shelter of the wood from which she had issued at the point where it most encroached upon the common. Sampson gazed after her for a moment in utter astonishment, and then obeyed her directions, hurrying to Woodbourne at a pace very unusual for him, exclaiming three times, 'Prodigious! prodigious! pro-di-gi-ous!'

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CHAPTER XVIII

It is not madness
That I have utter'd, bring me to the test,
And I the matter will re-word, which madness
Would gambol from.

Hamlet.

As Mr. Sampson crossed the hall with a bewildered look, Mrs. Allan, the good housekeeper, who, with the reverent attention which is usually rendered to the clergy in Scotland, was on the watch for his return, sallied forth to meet him--'What's this o't now, Mr. Sampson, this is waur than ever! Ye'll really do yoursell some injury wi' these lang fasts; naething's sae hurtful to the stamach, Mr. Sampson. If ye would but put some peppermint draps in your pocket, or let Barnes cut ye a sandwich.'

'Avoid thee!' quoth the Dominie, his mind running still upon his interview with Meg Merrilies, and making for the dining-parlour.

'Na, ye needna gang in there, the cloth's been removed an hour syne, and the Colonel's at his wine; but just step into my room, I have a nice steak that the cook will do in a moment.'

'Exorciso te!' said Sampson; 'that is, I have dined.'

'Dined! it's impossible; wha can ye hae dined wi', you that gangs out nae gate?'

'With Beelzebub, I believe,' said the minister.

'Na, then he's bewitched for certain,' said the housekeeper, letting go her hold; 'he's bewitched, or he's daft, and ony way the Colonel maun just guide him his ain gate. Wae's me! Hech, sirs! It's a sair thing to see learning bring folk to this!' And with this compassionate ejaculation she retreated into her own premises.

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The object of her commiseration had by this time entered the dining-parlour, where his appearance gave great surprise. He was mud up to the shoulders, and the natural paleness of his hue was twice as cadaverous as usual, through terror, fatigue, and perturbation of mind.

'What on earth is the meaning of this, Mr. Sampson?' said Mannering, who observed Miss Bertram looking much alarmed for her simple but attached friend.

'Exorciso,' said the Dominie.

'How, sir?' replied the astonished Colonel.

'I crave pardon, honourable sir! but my wits---'

'Are gone a wool-gathering, I think; pray, Mr. Sampson, collect yourself, and let me know the meaning of all this.'

Sampson was about to reply, but finding his Latin formula of exorcism still came most readily to his tongue, he prudently desisted from the attempt, and put the scrap of paper which he had received from the gipsy into Mannering's hand, who broke the seal and read it with surprise. 'This seems to be some jest,' he said, 'and a very dull one.'

'It came from no jesting person,' said Mr. Sampson.

'From whom then did it come?' demanded Mannering.

The Dominie, who often displayed some delicacy of recollection in cases where Miss Bertram had an interest, remembered the painful circumstances connected with Meg Merrilies, looked at the young ladies, and remained silent. 'We will join you at the tea-table in an instant, Julia,' said the Colonel; 'I see that Mr. Sampson wishes to speak to me alone. And now they are gone, what, in Heaven's name, Mr. Sampson, is the meaning of all this?'

'It may be a message from Heaven,' said the Dominie, 'but it came by Beelzebub's postmistress. It was that witch, Meg Merrilies, who should have been burned with a tar-barrel twenty years since for a harlot, thief, witch, and gipsy.'

‘Are you sure it was she?’ said the Colonel with great interest.

‘Sure, honoured sir? Of a truth she is one not to be forgotten, the like o’ Meg Merrilies is not to be seen in any land.’

The Colonel paced the room rapidly, cogitating with himself. ‘To send out to apprehend her; but it is too distant to send to Mac-Morlan, and Sir Robert Hazlewood is a pompous coxcomb; besides, the chance of not finding her upon the spot, or that the humour of silence that seized her before may again return. No, I will not, to save being thought a fool, neglect the course she points out. Many of her class set out by being impostors and end by becoming enthusiasts, or hold a kind of darkling conduct between both lines, unconscious almost when they are cheating themselves or when imposing on others. Well, my course is a plain one at any rate; and if my efforts are fruitless, it shall not be owing to over-jealousy of my own character for wisdom.’

With this he rang the bell, and, ordering Barnes into his private sitting-room, gave him some orders, with the result of which the reader may be made hereafter acquainted.

We must now take up another adventure, which is also to be woven into the story of this remarkable day.

Charles Hazlewood had not ventured to make a visit at Woodbourne during the absence of the Colonel. Indeed, Mannering’s whole behaviour had impressed upon him an opinion that this would be disagreeable; and such was the ascendency which the successful soldier and accomplished gentleman had attained over the young man’s conduct, that in no respect would he have ventured to offend him. He saw, or thought he saw, in Colonel Mannering’s general conduct, an approbation of his attachment to Miss Bertram. But then he saw still more plainly the impropriety of any attempt at a private correspondence, of which his parents could not be supposed to approve, and he respected this barrier interposed betwixt them both on Mannering’s account and as he was the liberal and zealous protector of Miss Bertram. ‘No,’ said he to himself, ‘I will

not endanger the comfort of my Lucy's present retreat until I can offer her a home of her own.'

With this valorous resolution, which he maintained although his horse, from constant habit, turned his head down the avenue of Woodbourne, and although he himself passed the lodge twice every day, Charles Hazlewood withstood a strong inclination to ride down just to ask how the young ladies were, and whether he could be of any service to them during Colonel Mannering's absence. But on the second occasion he felt the temptation so severe that he resolved not to expose himself to it a third time; and, contenting himself with sending hopes and inquiries and so forth to Woodbourne, he resolved to make a visit long promised to a family at some distance, and to return in such time as to be one of the earliest among Mannering's visitors who should congratulate his safe arrival from his distant and hazardous expedition to Edinburgh. Accordingly he made out his visit, and, having arranged matters so as to be informed within a few hours after Colonel Mannering reached home, he finally resolved to take leave of the friends with whom he had spent the intervening time, with the intention of dining at Woodbourne, where he was in a great measure domesticated; and this (for he thought much more deeply on the subject than was necessary) would, he flattered himself, appear a simple, natural, and easy mode of conducting himself.

Fate, however, of which lovers make so many complaints, was in this case unfavourable to Charles Hazlewood. His horse's shoes required an alteration, in consequence of the fresh weather having decidedly commenced. The lady of the house where he was a visitor chose to indulge in her own room till a very late breakfast hour. His friend also insisted on showing him a litter of puppies which his favourite pointer bitch had produced that morning. The colours had occasioned some doubts about the paternity--a weighty question of legitimacy, to the decision of which Hazlewood's opinion was called in as arbiter between his friend and his groom, and which inferred in its consequences which of the litter should be drowned, which saved. Besides, the

Laird himself delayed our young lover's departure for a considerable time, endeavouring, with long and superfluous rhetoric, to insinuate to Sir Robert Hazlewood, through the medium of his son, his own particular ideas respecting the line of a meditated turnpike road. It is greatly to the shame of our young lover's apprehension that, after the tenth reiterated account of the matter, he could not see the advantage to be obtained by the proposed road passing over the Lang Hirst, Windy Knowe, the Goodhouse Park, Hailziecroft, and then crossing the river at Simon's Pool, and so by the road to Kippletringan; and the less eligible line pointed out by the English surveyor, which would go clear through the main enclosures at Hazlewood, and cut within a mile or nearly so of the house itself, destroying the privacy and pleasure, as his informer contended, of the grounds. In short, the adviser (whose actual interest was to have the bridge built as near as possible to a farm of his own) failed in every effort to attract young Hazlewood's attention until he mentioned by chance that the proposed line was favoured by 'that fellow Glossin,' who pretended to take a lead in the county. On a sudden young Hazlewood became attentive and interested; and, having satisfied himself which was the line that Glossin patronised, assured his friend it should not be his fault if his father did not countenance any other instead of that. But these various interruptions consumed the morning. Hazlewood got on horseback at least three hours later than he intended, and, cursing fine ladies, pointers, puppies, and turnpike acts of parliament, saw himself detained beyond the time when he could with propriety intrude upon the family at Woodbourne.

He had passed, therefore, the turn of the road which led to that mansion, only edified by the distant appearance of the blue smoke curling against the pale sky of the winter evening, when he thought he beheld the Dominie taking a footpath for the house through the woods. He called after him, but in vain; for that honest gentleman, never the most susceptible of extraneous impressions, had just that moment parted from Meg Merrilies, and was too deeply wrapt up in pondering upon her vaticinations to make any answer to Hazlewood's call. He was therefore obliged to let him proceed without inquiry after

the health of the young ladies, or any other fishing question, to which he might by good chance have had an answer returned wherein Miss Bertram's name might have been mentioned. All cause for haste was now over, and, slackening the reins upon his horse's neck, he permitted the animal to ascend at his own leisure the steep sandy track between two high banks, which, rising to a considerable height, commanded at length an extensive view of the neighbouring country.

Hazlewood was, however, so far from eagerly looking forward to this prospect, though it had the recommendation that great part of the land was his father's, and must necessarily be his own, that his head still turned backward towards the chimneys of Woodbourne, although at every step his horse made the difficulty of employing his eyes in that direction become greater. From the reverie in which he was sunk he was suddenly roused by a voice, too harsh to be called female, yet too shrill for a man: 'What's kept you on the road sae lang? Maun ither folk do your wark?'

He looked up. The spokeswoman was very tall, had a voluminous handkerchief rolled round her head, grizzled hair flowing in elf-locks from beneath it, a long red cloak, and a staff in her hand, headed with a sort of spear-point; it was, in short, Meg Merrilies. Hazlewood had never seen this remarkable figure before; he drew up his reins in astonishment at her appearance, and made a full stop. 'I think,' continued she, 'they that hae taen interest in the house of Ellangowan suld sleep nane this night; three men hae been seeking ye, and you are gaun hame to sleep in your bed. D' ye think if the lad-bairn fa's, the sister will do weel? Na, na!'

'I don't understand you, good woman,' said Hazlewood. 'If you speak of Miss---, I mean of any of the late Ellangowan family, tell me what I can do for them.'

'Of the late Ellangowan family?' she answered with great vehemence--'of the LATE Ellangowan family! and when was there ever, or when will there ever be, a family of Ellangowan but bearing the gallant name of the bauld Bertrams?'

'But what do you mean, good woman?'

‘I am nae good woman; a’ the country kens I am bad eneugh, and baith they and I may be sorry eneugh that I am nae better. But I can do what good women canna, and daurna do. I can do what would freeze the blood o’ them that is bred in biggit wa’s for naething but to bind bairns’ heads and to hap them in the cradle. Hear me: the guard’s drawn off at the custom-house at Portanferry, and it’s brought up to Hazlewood House by your father’s orders, because he thinks his house is to be attacked this night by the smugglers. There’s naebody means to touch his house; he has gude blood and gentle blood--I say little o’ him for himsell--but there’s naebody thinks him worth meddling wi’. Send the horsemen back to their post, cannily and quietly; see an they winna hae wark the night, ay will they: the guns will flash and the swords will glitter in the braw moon.’

‘Good God! what do you mean?’ said young Hazlewood; ‘your words and manner would persuade me you are mad, and yet there is a strange combination in what you say.’

‘I am not mad!’ exclaimed the gipsy; ‘I have been imprisoned for mad--scourged for mad--banished for mad--but mad I am not. Hear ye, Charles Hazlewood of Hazlewood: d’ye bear malice against him that wounded you?’

‘No, dame, God forbid; my arm is quite well, and I have always said the shot was discharged by accident. I should be glad to tell the young man so himself.’

‘Then do what I bid ye,’ answered Meg Merrilies, ‘and ye ‘ll do him mair gude than ever he did you ill; for if he was left to his ill-wishers he would be a bloody corpse ere morn, or a banished man; but there’s Ane abune a’. Do as I bid you; send back the soldiers to Portanferry. There’s nae mair fear o’ Hazlewood House than there’s o’ Cruffel Fell.’ And she vanished with her usual celerity of pace.

It would seem that the appearance of this female, and the mixture of frenzy and enthusiasm in her manner, seldom failed to produce the strongest impression upon those whom she addressed. Her words, though wild, were too plain and intelligible for actual

madness, and yet too vehement and extravagant for sober-minded communication. She seemed acting under the influence of an imagination rather strongly excited than deranged; and it is wonderful how palpably the difference in such cases is impressed upon the mind of the auditor. This may account for the attention with which her strange and mysterious hints were heard and acted upon. It is certain, at least, that young Hazlewood was strongly impressed by her sudden appearance and imperative tone. He rode to Hazlewood at a brisk pace. It had been dark for some time before he reached the house, and on his arrival there he saw a confirmation of what the sibyl had hinted.

Thirty dragoon horses stood under a shed near the offices, with their bridles linked together. Three or four soldiers attended as a guard, while others stamped up and down with their long broadswords and heavy boots in front of the house. Hazlewood asked a non-commissioned officer from whence they came.

'From Portanferry.'

'Had they left any guard there?'

'No; they had been drawn off by order of Sir Robert Hazlewood for defence of his house against an attack which was threatened by the smugglers.'

Charles Hazlewood instantly went in quest of his father, and, having paid his respects to him upon his return, requested to know upon what account he had thought it necessary to send for a military escort. Sir Robert assured his son in reply that, from the information, intelligence, and tidings which had been communicated to, and laid before him, he had the deepest reason to believe, credit, and be convinced that a riotous assault would that night be attempted and perpetrated against Hazlewood House by a set of smugglers, gipsies, and other desperadoes.

'And what, my dear sir,' said his son, 'should direct the fury of such persons against ours rather than any other house in the country?'

'I should rather think, suppose, and be of opinion, sir,' answered Sir Robert, 'with deference to your wisdom and experience, that on these occasions and times the

vengeance of such persons is directed or levelled against the most important and distinguished in point of rank, talent, birth, and situation who have checked, interfered with, and discountenanced their unlawful and illegal and criminal actions or deeds.'

Young Hazlewood, who knew his father's foible, answered, that the cause of his surprise did not lie where Sir Robert apprehended, but that he only wondered they should think of attacking a house where there were so many servants, and where a signal to the neighbouring tenants could call in such strong assistance; and added, that he doubted much whether the reputation of the family would not in some degree suffer from calling soldiers from their duty at the custom-house to protect them, as if they were not sufficiently strong to defend themselves upon any ordinary occasion. He even hinted that, in case their house's enemies should observe that this precaution had been taken unnecessarily, there would be no end of their sarcasms.

Sir Robert Hazlewood was rather puzzled at this intimation, for, like most dull men, he heartily hated and feared ridicule. He gathered himself up and looked with a sort of pompous embarrassment, as if he wished to be thought to despise the opinion of the public, which in reality he dreaded.

'I really should have thought,' he said, 'that the injury which had already been aimed at my house in your person, being the next heir and representative of the Hazlewood family, failing me--I should have thought and believed, I say, that this would have justified me sufficiently in the eyes of the most respectable and the greater part of the people for taking such precautions as are calculated to prevent and impede a repetition of outrage.'

'Really, sir,' said Charles, 'I must remind you of what I have often said before, that I am positive the discharge of the piece was accidental.'

'Sir, it was not accidental,' said his father, angrily; 'but you will be wiser than your elders.'

'Really, sir,' replied Hazlewood, 'in what so intimately concerns myself---'

‘Sir, it does not concern you but in a very secondary degree; that is, it does not concern you, as a giddy young fellow who takes pleasure in contradicting his father; but it concerns the country, sir, and the county, sir, and the public, sir, and the kingdom of Scotland, in so far as the interest of the Hazlewood family, sir, is committed and interested and put in peril, in, by, and through you, sir. And the fellow is in safe custody, and Mr. Glossin thinks---’

‘Mr. Glossin, sir?’

‘Yes, sir, the gentleman who has purchased Ellangowan; you know who I mean, I suppose?’

‘Yes, sir,’ answered the young man; ‘but I should hardly have expected to hear you quote such authority. Why, this fellow--all the world knows him to be sordid, mean, tricking, and I suspect him to be worse. And you yourself, my dear sir, when did you call such a person a gentleman in your life before?’

‘Why, Charles, I did not mean gentleman in the precise sense and meaning, and restricted and proper use, to which, no doubt, the phrase ought legitimately to be confined; but I meant to use it relatively, as marking something of that state to which he has elevated and raised himself; as designing, in short, a decent and wealthy and estimable sort of a person.’

‘Allow me to ask, sir,’ said Charles, ‘if it was by this man’s orders that the guard was drawn from Portanferry?’

‘Sir,’ replied the Baronet, ‘I do apprehend that Mr. Glossin would not presume to give orders, or even an opinion, unless asked, in a matter in which Hazlewood House and the house of Hazlewood--meaning by the one this mansion-house of my family, and by the other, typically, metaphorically, and parabolically, the family itself,--I say, then, where the house of Hazlewood, or Hazlewood House, was so immediately concerned.’

‘I presume, however, sir,’ said the son, ‘this Glossin approved of the proposal?’

‘Sir,’ replied his father, ‘I thought it decent and right and proper to consult him as the nearest magistrate as soon as report of the intended outrage reached my ears; and although he declined, out of deference and respect, as became our relative situations, to concur in the order, yet he did entirely approve of my arrangement.’

At this moment a horse’s feet were heard coming very fast up the avenue. In a few minutes the door opened, and Mr. Mac-Morlan presented himself. ‘I am under great concern to intrude, Sir Robert, but---’

‘Give me leave, Mr. Mac-Morlan,’ said Sir Robert, with a gracious flourish of welcome; ‘this is no intrusion, sir; for, your situation as sheriff-substitute calling upon you to attend to the peace of the county, and you, doubtless, feeling yourself particularly called upon to protect Hazlewood House, you have an acknowledged and admitted and undeniable right, sir, to enter the house of the first gentleman in Scotland uninvited--always presuming you to be called there by the duty of your office.’

‘It is indeed the duty of my office,’ said Mac-Morlan, who waited with impatience an opportunity to speak, ‘that makes me an intruder.’

‘No intrusion!’ reiterated the Baronet, gracefully waving his hand.

‘But permit me to say, Sir Robert,’ said the sheriff-substitute, ‘I do not come with the purpose of remaining here, but to recall these soldiers to Portanferry, and to assure you that I will answer for the safety of your house.’

‘To withdraw the guard from Hazlewood House!’ exclaimed the proprietor in mingled displeasure and surprise; ‘and YOU will be answerable for it! And, pray, who are you, sir, that I should take your security and caution and pledge, official or personal, for the safety of Hazlewood House? I think, sir, and believe, sir, and am of opinion, sir, that if any one of these family pictures were deranged or destroyed or injured it would be difficult for me to make up the loss upon the guarantee which you so obligingly offer me.’

Zain.adwan

‘In that case I shall be sorry for it, Sir Robert,’ answered the downright Mac-Morlan; ‘but I presume I may escape the pain of feeling my conduct the cause of such irreparable loss, as I can assure you there will be no attempt upon Hazlewood House whatever, and I have received information which induces me to suspect that the rumour was put afloat merely in order to occasion the removal of the soldiers from Portanferry. And under this strong belief and conviction I must exert my authority as sheriff and chief magistrate of police to order the whole, or greater part of them, back again. I regret much that by my accidental absence a good deal of delay has already taken place, and we shall not now reach Portanferry until it is late.’

As Mr. Mac-Morlan was the superior magistrate, and expressed himself peremptory in the purpose of acting as such, the Baronet, though highly offended, could only say, ‘Very well, sir; it is very well. Nay, sir, take them all with you; I am far from desiring any to be left here, sir. We, sir, can protect ourselves, sir. But you will have the goodness to observe, sir, that you are acting on your own proper risk, sir, and peril, sir, and responsibility, sir, if anything shall happen or befall to Hazlewood House, sir, or the inhabitants, sir, or to the furniture and paintings, sir.’

‘I am acting to the best of my judgment and information, Sir Robert,’ said Mac-Morlan, ‘and I must pray of you to believe so, and to pardon me accordingly. I beg you to observe it is no time for ceremony; it is already very late.’

But Sir Robert, without deigning to listen to his apologies, immediately employed himself with much parade in arming and arraying his domestics. Charles Hazlewood longed to accompany the military, which were about to depart for Portanferry, and which were now drawn up and mounted by direction and under the guidance of Mr. Mac-Morlan, as the civil magistrate. But it would have given just pain and offence to his father to have left him at a moment when he conceived himself and his mansion-house in danger. Young Hazlewood therefore gazed from a window with suppressed regret and displeasure, until he heard the officer give the word of command--’From the

right to the front, by files, m-a-rch. Leading file, to the right wheel. Trot.' The whole party of soldiers then getting into a sharp and uniform pace, were soon lost among the trees, and the noise of the hoofs died speedily away in the distance.

CHAPTER XIX

Wi' coulters and wi' forehammers
We garr'd the bars bang merrily,
Until we came to the inner prison,
Where Willie o' Kinmont he did lie.

Old Border Ballad.

We return to Portanferry, and to Bertram and his honest-hearted friend, whom we left most innocent inhabitants of a place built for the guilty. The slumbers of the farmer were as sound as it was possible.

But Bertram's first heavy sleep passed away long before midnight, nor could he again recover that state of oblivion. Added to the uncertain and uncomfortable state of his mind, his body felt feverish and oppressed. This was chiefly owing to the close and confined air of the small apartment in which they slept. After enduring for some time the broiling and suffocating feeling attendant upon such an atmosphere, he rose to endeavour to open the window of the apartment, and thus to procure a change of air. Alas! the first trial reminded him that he was in jail, and that the building being

contrived for security, not comfort, the means of procuring fresh air were not left at the disposal of the wretched inhabitants.

Disappointed in this attempt, he stood by the unmanageable window for some time. Little Wasp, though oppressed with the fatigue of his journey on the preceding day, crept out of bed after his master, and stood by him rubbing his shaggy coat against his legs, and expressing by a murmuring sound the delight which he felt at being restored to him. Thus accompanied, and waiting until the feverish feeling which at present agitated his blood should subside into a desire for warmth and slumber, Bertram remained for some time looking out upon the sea.

The tide was now nearly full, and dashed hoarse and near below the base of the building. Now and then a large wave reached even the barrier or bulwark which defended the foundation of the house, and was flung up on it with greater force and noise than those which only broke upon the sand. Far in the distance, under the indistinct light of a hazy and often overclouded moon, the ocean rolled its multitudinous complication of waves, crossing, bursting, and mingling with each other.

'A wild and dim spectacle,' said Bertram to himself, 'like those crossing tides of fate which have tossed me about the world from my infancy upwards. When will this uncertainty cease, and how soon shall I be permitted to look out for a tranquil home, where I may cultivate in quiet, and without dread and perplexity, those arts of peace from which my cares have been hitherto so forcibly diverted? The ear of Fancy, it is said, can discover the voice of sea-nymphs and tritons amid the bursting murmurs of the ocean; would that I could do so, and that some siren or Proteus would arise from these billows to unriddle for me the strange maze of fate in which I am so deeply entangled! Happy friend!' he said, looking at the bed where Dinmont had deposited his bulky person, 'thy cares are confined to the narrow round of a healthy and thriving occupation! Thou canst lay them aside at pleasure, and enjoy the deep repose of body and mind which wholesome labour has prepared for thee!'

At this moment his reflections were broken by little Wasp, who, attempting to spring up against the window, began to yelp and bark most furiously. The sounds reached Dinmont's ears, but without dissipating the illusion which had transported him from this wretched apartment to the free air of his own green hills. 'Hoy, Yarrow, man! far yaud, far yaud!' he muttered between his teeth, imagining, doubtless, that he was calling to his sheep-dog, and hounding him in shepherds' phrase against some intruders on the grazing. The continued barking of the terrier within was answered by the angry challenge of the mastiff in the courtyard, which had for a long time been silent, excepting only an occasional short and deep note, uttered when the moon shone suddenly from among the clouds. Now his clamour was continued and furious, and seemed to be excited by some disturbance distinct from the barking of Wasp, which had first given him the alarm, and which, with much trouble, his master had contrived to still into an angry note of low growling.

At last Bertram, whose attention was now fully awakened, conceived that he saw a boat upon the sea, and heard in good earnest the sound of oars and of human voices mingling with the dash of the billows. 'Some benighted fishermen,' he thought, 'or perhaps some of the desperate traders from the Isle of Man. They are very hardy, however, to approach so near to the custom-house, where there must be sentinels. It is a large boat, like a long-boat, and full of people; perhaps it belongs to the revenue service.' Bertram was confirmed in this last opinion by observing that the boat made for a little quay which ran into the sea behind the custom-house, and, jumping ashore one after another, the crew, to the number of twenty hands, glided secretly up a small lane which divided the custom-house from the bridewell, and disappeared from his sight, leaving only two persons to take care of the boat.

The dash of these men's oars at first, and latterly the suppressed sounds of their voices, had excited the wrath of the wakeful sentinel in the courtyard, who now exalted his deep voice into such a horrid and continuous din that it awakened his brute master,

as savage a ban-dog as himself. His cry from a window, of 'How now, Tearum, what's the matter, sir? down, d--n ye, down!' produced no abatement of Tearum's vociferation, which in part prevented his master from hearing the sounds of alarm which his ferocious vigilance was in the act of challenging. But the mate of the two-legged Cerberus was gifted with sharper ears than her husband. She also was now at the window. 'B--t ye, gae down and let loose the dog,' she said; 'they're sporting the door of the custom-house, and the auld sap at Hazlewood House has ordered off the guard. But ye hae nae mair heart than a cat.' And down the Amazon sallied to perform the task herself, while her helpmate, more jealous of insurrection within doors than of storm from without, went from cell to cell to see that the inhabitants of each were carefully secured.

These latter sounds with which we have made the reader acquainted had their origin in front of the house, and were consequently imperfectly heard by Bertram, whose apartment, as we have already noticed, looked from the back part of the building upon the sea. He heard, however, a stir and tumult in the house, which did not seem to accord with the stern seclusion of a prison at the hour of midnight, and, connecting them with the arrival of an armed boat at that dead hour, could not but suppose that something extraordinary was about to take place. In this belief he shook Dinmont by the shoulder. 'Eh! Ay! Oh! Ailie, woman, it's no time to get up yet,' groaned the sleeping man of the mountains. More roughly shaken, however, he gathered himself up, shook his ears, and asked, 'In the name of Providence what's the matter?'

'That I can't tell you,' replied Bertram; 'but either the place is on fire or some extraordinary thing is about to happen. Are you not sensible of a smell of fire? Do you not hear what a noise there is of clashing doors within the house and of hoarse voices, murmurs, and distant shouts on the outside? Upon my word, I believe something very extraordinary has taken place. Get up, for the love of Heaven, and let us be on our guard.'

Dinmont rose at the idea of danger, as intrepid and undismayed as any of his ancestors when the beacon-light was kindled. ‘Od, Captain, this is a queer place! they winna let ye out in the day, and they winna let ye sleep in the night. Deil, but it wad break my heart in a fortnight. But, Lordsake, what a racket they’re making now! Od, I wish we had some light. Wasp, Wasp, whisht, hinny; whisht, my bonnie man, and let’s hear what they’re doing. Deil’s in ye, will ye whisht?’

They sought in vain among the embers the means of lighting their candle, and the noise without still continued. Dinmont in his turn had recourse to the window--’Lordsake, Captain! come here. Od, they hae broken the custom-house!’

Bertram hastened to the window, and plainly saw a miscellaneous crowd of smugglers, and blackguards of different descriptions, some carrying lighted torches, others bearing packages and barrels down the lane to the boat that was lying at the quay, to which two or three other fisher-boats were now brought round. They were loading each of these in their turn, and one or two had already put off to seaward. ‘This speaks for itself,’ said Bertram; ‘but I fear something worse has happened. Do you perceive a strong smell of smoke, or is it my fancy?’

‘Fancy?’ answered Dinmont, ‘there’s a reek like a killogie. Od, if they burn the custom-house it will catch here, and we’ll lunt like a tar-barrel a’ thegither. Eh! it wad be fearsome to be burnt alive for naething, like as if ane had been a warlock! Mac-Guffog, hear ye!’ roaring at the top of his voice; ‘an ye wad ever hae a haill bane in your skin, let’s out, man, let’s out!’

The fire began now to rise high, and thick clouds of smoke rolled past the window at which Bertram and Dinmont were stationed. Sometimes, as the wind pleased, the dim shroud of vapour hid everything from their sight; sometimes a red glare illuminated both land and sea, and shone full on the stern and fierce figures who, wild with ferocious activity, were engaged in loading the boats. The fire was at length triumphant, and spouted in jets of flame out at each window of the burning building, while huge flakes

of flaming materials came driving on the wind against the adjoining prison, and rolling a dark canopy of smoke over all the neighbourhood. The shouts of a furious mob resounded far and wide; for the smugglers in their triumph were joined by all the rabble of the little town and neighbourhood, now aroused and in complete agitation, notwithstanding the lateness of the hour, some from interest in the free trade, and most from the general love of mischief and tumult natural to a vulgar populace.

Bertram began to be seriously anxious for their fate. There was no stir in the house; it seemed as if the jailor had deserted his charge, and left the prison with its wretched inhabitants to the mercy of the conflagration which was spreading towards them. In the meantime a new and fierce attack was heard upon the outer gate of the correction house, which, battered with sledge-hammers and crows, was soon forced. The keeper, as great a coward as a bully, with his more ferocious wife, had fled; their servants readily surrendered the keys. The liberated prisoners, celebrating their deliverance with the wildest yells of joy, mingled among the mob which had given them freedom.

In the midst of the confusion that ensued three or four of the principal smugglers hurried to the apartment of Bertram with lighted torches, and armed with cutlasses and pistols. ‘Der deyvil,’ said the leader, ‘here’s our mark!’ and two of them seized on Bertram; but one whispered in his ear,’ Make no resistance till you are in the street.’ The same individual found an instant to say to Dinmont--’Follow your friend, and help when you see the time come.’

In the hurry of the moment Dinmont obeyed and followed close. The two smugglers dragged Bertram along the passage, downstairs, through the courtyard, now illuminated by the glare of fire, and into the narrow street to which the gate opened, where in the confusion the gang were necessarily in some degree separated from each other. A rapid noise, as of a body of horse advancing, seemed to add to the disturbance. ‘Hagel and wetter, what is that?’ said the leader; ‘keep together, kinder; look to the prisoner.’ But in spite of his charge the two who held Bertram were the last of the party.

The sounds and signs of violence were heard in front. The press became furiously agitated, while some endeavoured to defend themselves, others to escape; shots were fired, and the glittering broadswords of the dragoons began to appear flashing above the heads of the rioters. ‘Now,’ said the warning whisper of the man who held Bertram’s left arm, the same who had spoken before, ‘shake off that fellow and follow me.’

Bertram, exerting his strength suddenly and effectually, easily burst from the grasp of the man who held his collar on the right side. The fellow attempted to draw a pistol, but was prostrated by a blow of Dinmont’s fist, which an ox could hardly have received without the same humiliation. ‘Follow me quick,’ said the friendly partizan, and dived through a very narrow and dirty lane which led from the main street.

No pursuit took place. The attention of the smugglers had been otherwise and very disagreeably engaged by the sudden appearance of Mac-Morlan and the party of horse. The loud, manly voice of the provincial magistrate was heard proclaiming the Riot Act, and charging ‘all those unlawfully assembled to disperse at their own proper peril.’ This interruption would, indeed, have happened in time sufficient to have prevented the attempt, had not the magistrate received upon the road some false information which led him to think that the smugglers were to land at the bay of Ellangowan. Nearly two hours were lost in consequence of this false intelligence, which it may be no lack of charity to suppose that Glossin, so deeply interested in the issue of that night’s daring attempt, had contrived to throw in Mac-Morlan’s way, availing himself of the knowledge that the soldiers had left Hazlewood House, which would soon reach an ear so anxious as his.

In the meantime, Bertram followed his guide, and was in his turn followed by Dinmont. The shouts of the mob, the trampling of the horses, the dropping pistol-shots, sunk more and more faintly upon their ears, when at the end of the dark lane they found a post-chaise with four horses. ‘Are you here, in God’s name?’ said the guide to the postilion who drove the leaders.

‘Ay, troth am I,’ answered Jock Jabos, ‘and I wish I were ony gate else.’

‘Open the carriage then. You, gentlemen, get into it; in a short time you’ll be in a place of safety, and (to Bertram) remember your promise to the gipsy wife!’

Bertram, resolving to be passive in the hands of a person who had just rendered him such a distinguished piece of service, got into the chaise as directed. Dinmont followed; Wasp, who had kept close by them, sprung in at the same time, and the carriage drove off very fast. ‘Have a care o’ me,’ said Dinmont, ‘but this is the queerest thing yet! Od, I trust they’ll no coup us. And then what’s to come o’ Dumple? I would rather be on his back than in the Deuke’s coach, God bless him.’

Bertram observed, that they could not go at that rapid rate to any very great distance without changing horses, and that they might insist upon remaining till daylight at the first inn they stopped at, or at least upon being made acquainted with the purpose and termination of their journey, and Mr. Dinmont might there give directions about his faithful horse, which would probably be safe at the stables where he had left him. ‘Aweel, aweel, e’en sae be it for Dandie. Od, if we were ance out o’ this trindling kist o’ a thing, I am thinking they wad find it hard wark to gar us gang ony gate but where we liked oursells.’

While he thus spoke the carriage, making a sudden turn, showed them through the left window the village at some distance, still widely beaconed by the fire, which, having reached a store-house wherein spirits were deposited, now rose high into the air, a wavering column of brilliant light. They had not long time to admire this spectacle, for another turn of the road carried them into a close lane between plantations, through which the chaise proceeded in nearly total darkness, but with unabated speed.

Zaid H. adwan

CHAPTER XX

The night drave on wi' sangs and clatter,
And aye the ale was growing better

Tam o'Shanter.

We must now return to Woodbourne, which, it may be remembered, we left just after the Colonel had given some directions to his confidential servant. When he returned, his absence of mind, and an unusual expression of thought and anxiety upon his features, struck the ladies, whom he joined in the drawing-room. Mannering was not, however, a man to be questioned, even by those whom he most loved, upon the cause of the mental agitation which these signs expressed. The hour of tea arrived, and the party were partaking of that refreshment in silence when a carriage drove up to the door, and the bell announced the arrival of a visitor. 'Surely,' said Mannering, 'it is too soon by some hours.'

There was a short pause, when Barnes, opening the door of the saloon, announced Mr. Pleydell. In marched the lawyer, whose well-brushed black coat and well-powdered wig, together with his point ruffles, brown silk stockings, highly-varnished shoes, and gold buckles, exhibited the pains which the old gentleman had taken to prepare his person for the ladies' society. He was welcomed by Mannering with a hearty shake by the hand. 'The very man I wished to see at this moment!'

'Yes,' said the Counsellor, 'I told you I would take the first opportunity; so I have ventured to leave the court for a week in session time--no common sacrifice; but I had a notion I could be useful, and I was to attend a proof here about the same time. But

will you not introduce me to the young ladies? Ah! there is one I should have known at once from her family likeness! Miss Lucy Bertram, my love, I am most happy to see you.' And he folded her in his arms, and gave her a hearty kiss on each side of the face, to which Lucy submitted in blushing resignation.

'On n'arrete pas dans un si beau chemin,' continued the gay old gentleman, and, as the Colonel presented him to Julia, took the same liberty with that fair lady's cheek. Julia laughed, coloured, and disengaged herself. 'I beg a thousand pardons,' said the lawyer, with a bow which was not at all professionally awkward; 'age and old fashions give privileges, and I can hardly say whether I am most sorry just now at being too well entitled to claim them at all, or happy in having such an opportunity to exercise them so agreeably.'

'Upon my word, sir,' said Miss Mannering, laughing, 'if you make such flattering apologies we shall begin to doubt whether we can admit you to shelter yourself under your alleged qualifications.'

'I can assure you, Julia,' said the Colonel, 'you are perfectly right. My friend the Counsellor is a dangerous person; the last time I had the pleasure of seeing him he was closeted with a fair lady who had granted him a tete-a-tete at eight in the morning.'

'Ay, but, Colonel,' said the Counsellor, 'you should add, I was more indebted to my chocolate than my charms for so distinguished a favour from a person of such propriety of demeanour as Mrs. Rebecca.'

'And that should remind me, Mr. Pleydell,' said Julia, 'to offer you tea; that is, supposing you have dined.'

'Anything, Miss Mannering, from your hands,' answered the gallant jurisconsult; 'yes, I have dined; that is to say, as people dine at a Scotch inn.'

'And that is indifferently enough,' said the Colonel, with his hand upon the bell-handle; 'give me leave to order something.'

zaid n. adwan

‘Why, to say truth, ‘replied Mr. Pleydell, ‘I had rather not. I have been inquiring into that matter, for you must know I stopped an instant below to pull off my boot-hose, “a world too wide for my shrunk shanks,”’ glancing down with some complacency upon limbs which looked very well for his time of life, ‘and I had some conversation with your Barnes and a very intelligent person whom I presume to be the housekeeper; and it was settled among us, tota re perspecta,--I beg Miss Mannering’s pardon for my Latin,--that the old lady should add to your light family supper the more substantial refreshment of a brace of wild ducks. I told her (always under deep submission) my poor thoughts about the sauce, which concurred exactly with her own; and, if you please, I would rather wait till they are ready before eating anything solid.’

‘And we will anticipate our usual hour of supper,’ said the Colonel.

‘With all my heart,’ said Pleydell, ‘providing I do not lose the ladies’ company a moment the sooner. I am of counsel with my old friend Burnet; [Footnote: See Note 5] I love the coena, the supper of the ancients, the pleasant meal and social glass that wash out of one’s mind the cobwebs that business or gloom have been spinning in our brains all day.’

The vivacity of Mr. Pleydell’s look and manner, and the quietness with which he made himself at home on the subject of his little epicurean comforts, amused the ladies, but particularly Miss Mannering, who immediately gave the Counsellor a great deal of flattering attention; and more pretty things were said on both sides during the service of the tea-table than we have leisure to repeat.

As soon as this was over, Mannering led the Counsellor by the arm into a small study which opened from the saloon, and where, according to the custom of the family, there were always lights and a good fire in the evening.

‘I see,’said Mr. Pleydell, ‘you have got something to tell me about the Ellangowan business. Is it terrestrial or celestial? What says my military Albumazar? Have you

calculated the course of futurity? have you consulted your ephemerides, your almochoden, your almuten?'

'No, truly, Counsellor,' replied Mannering, 'you are the only Ptolemy I intend to resort to upon the present occasion. A second Prospero, I have broken my staff and drowned my book far beyond plummet depth. But I have great news notwithstanding. Meg Merrilies, our Egyptian sibyl, has appeared to the Dominie this very day, and, as I conjecture, has frightened the honest man not a little.'

'Indeed?'

'Ay, and she has done me the honour to open a correspondence with me, supposing me to be as deep in astrological mysteries as when we first met. Here is her scroll, delivered to me by the Dominie.'

Pleydell put on his spectacles. 'A vile greasy scrawl, indeed; and the letters are uncial or semi-uncial, as somebody calls your large text hand, and in size and perpendicularity resemble the ribs of a roasted pig; I can hardly make it out.'

'Read aloud,' said Mannering.

'I will try,' answered the Lawyer. '"YOU ARE A GOOD SEEKER, BUT A BAD FINDER; YOU SET YOURSELF TO PROP A FALLING HOUSE, BUT HAD A GEY GUESS IT WOULD RISE AGAIN. LEND YOUR HAND TO THE WORK THAT'S NEAR, AS YOU LENT YOUR EE TO THE WEIRD THAT WAS FAR. HAVE A CARRIAGE THIS NIGHT BY TEN O'CLOCK AT THE END OF THE CROOKED DYKES AT PORTANFERRY, AND LET IT BRING THE FOLK TO WOODBOURNE THAT SHALL ASK THEM, IF THEY BE THERE IN GOD'S NAME."--Stay, here follows some poetry--

"DARK SHALL BE LIGHT,
AND WRONG DONE TO RIGHT,
WHEN BERTRAM'S RIGHT AND BERTRAM'S MIGHT
SHALL MEET ON ELLANGOWAN'S HEIGHT."

A most mystic epistle truly, and closes in a vein of poetry worthy of the Cumaean sibyl. And what have you done?'

'Why,' said Mannering, rather reluctantly, 'I was loth to risk any opportunity of throwing light on this business. The woman is perhaps crazed, and these effusions may arise only from visions of her imagination; but you were of opinion that she knew more of that strange story than she ever told.'

'And so,' said Pleydell, 'you sent a carriage to the place named?'

'You will laugh at me if I own I did,' replied the Colonel.

'Who, I?' replied the Advocate. 'No, truly, I think it was the wisest thing you could do.'

'Yes,' answered Mannering, well pleased to have escaped the ridicule he apprehended; 'you know the worst is paying the chaise-hire. I sent a post-chaise and four from Kippletringan, with instructions corresponding to the letter; the horses will have a long and cold station on the outpost to-night if our intelligence be false.'

'Ay, but I think it will prove otherwise,' said the Lawyer. 'This woman has played a part till she believes it; or, if she be a thorough-paced impostor, without a single grain of self-delusion to qualify her knavery, still she may think herself bound to act in character; this I know, that I could get nothing out of her by the common modes of interrogation, and the wisest thing we can do is to give her an opportunity of making the discovery her own way. And now have you more to say, or shall we go to the ladies?'

'Why, my mind is uncommonly agitated,' answered the Colonel, 'and--but I really have no more to say; only I shall count the minutes till the carriage returns; but you cannot be expected to be so anxious.'

'Why, no; use is all in all,' said the more experienced lawyer; 'I am much interested certainly, but I think I shall be able to survive the interval, if the ladies will afford us some music.'

'And with the assistance of the wild ducks, by and by?' suggested Mannering.

‘True, Colonel; a lawyer’s anxiety about the fate of the most interesting cause has seldom spoiled either his sleep or digestion. [Footnote: See Note 6.] And yet I shall be very eager to hear the rattle of these wheels on their return, notwithstanding.’

So saying, he rose and led the way into the next room, where Miss Mannering, at his request, took her seat at the harpsichord, Lucy Bertram, who sung her native melodies very sweetly, was accompanied by her friend upon the instrument, and Julia afterwards performed some of Scarlatti’s sonatas with great brilliancy. The old lawyer, scraping a little upon the violoncello, and being a member of the gentlemen’s concert in Edinburgh, was so greatly delighted with this mode of spending the evening that I doubt if he once thought of the wild ducks until Barnes informed the company that supper was ready.

‘Tell Mrs. Allan to have something in readiness,’ said the Colonel; ‘I expect--that is, I hope--perhaps some company may be here to-night; and let the men sit up, and do not lock the upper gate on the lawn until I desire you.’

‘Lord, sir,’ said Julia, ‘whom can you possibly expect to-night?’

‘Why, some persons, strangers to me, talked of calling in the evening on business,’ answered her father, not without embarrassment, for he would have little brooked a disappointment which might have thrown ridicule on his judgment; ‘it is quite uncertain.’

‘Well, we shall not pardon them for disturbing our party,’ said Julia, ‘unless they bring as much good-humour and as susceptible hearts as my friend and admirer, for so he has dubbed himself, Mr. Pleydell.’

‘Ah, Miss Julia,’ said Pleydell, offering his arm with an air of gallantry to conduct her into the eating-room, ‘the time has been, when I returned from Utrecht in the year 1738--’

zaid.adwan

‘Pray don’t talk of it,’ answered the young lady; ‘we like you much better as you are. Utrecht, in Heaven’s name! I daresay you have spent all the intervening years in getting rid so completely of the effects of your Dutch education.’

‘O forgive me, Miss Mannering,’ said the Lawyer, ‘the Dutch are a much more accomplished people in point of gallantry than their volatile neighbours are willing to admit. They are constant as clock-work in their attentions.’

‘I should tire of that,’ said Julia.

‘Imperturbable in their good temper,’ continued Pleydell.

‘Worse and worse,’ said the young lady.

‘And then,’ said the old beau garcon, ‘although for six times three hundred and sixty-five days your swain has placed the capuchin round your neck, and the stove under your feet, and driven your little sledge upon the ice in winter, and your cabriole through the dust in summer, you may dismiss him at once, without reason or apology, upon the two thousand one hundred and ninetieth day, which, according to my hasty calculation, and without reckoning leap-years, will complete the cycle of the supposed adoration, and that without your amiable feelings having the slightest occasion to be alarmed for the consequences to those of Mynheer.’

‘Well,’ replied Julia,’ that last is truly a Dutch recommendation, Mr. Pleydell; crystal and hearts would lose all their merit in the world if it were not for their fragility.’

‘Why, upon that point of the argument, Miss Mannering, it is as difficult to find a heart that will break as a glass that will not; and for that reason I would press the value of mine own, were it not that I see Mr. Sampson’s eyes have been closed, and his hands clasped for some time, attending the end of our conference to begin the grace. And, to say the truth, the appearance of the wild ducks is very appetising.’ So saying, the worthy Counsellor sat himself to table, and laid aside his gallantry for awhile to do honour to the good things placed before him. Nothing further is recorded of him for some time,

excepting an observation that the ducks were roasted to a single turn, and that Mrs. Allan's sauce of claret, lemon, and cayenne was beyond praise.

'I see,' said Miss Mannering, 'I have a formidable rival in Mr. Pleydell's favour, even on the very first night of his avowed admiration.'

'Pardon me, my fair lady,' answered the Counsellor, 'your avowed rigour alone has induced me to commit the solecism of eating a good supper in your presence; how shall I support your frowns without reinforcing my strength? Upon the same principle, and no other, I will ask permission to drink wine with you.'

'This is the fashion of Utrecht also, I suppose, Mr. Pleydell?'

'Forgive me, madam,' answered the Counsellor; 'the French themselves, the patterns of all that is gallant, term their tavern-keepers restaurateurs, alluding, doubtless, to the relief they afford the disconsolate lover when bowed down to the earth by his mistress's severity. My own case requires so much relief that I must trouble you for that other wing, Mr. Sampson, without prejudice to my afterwards applying to Miss Bertram for a tart. Be pleased to tear the wing, sir, instead of cutting it off. Mr. Barnes will assist you, Mr. Sampson; thank you, sir; and, Mr. Barnes, a glass of ale, if you please.'

While the old gentleman, pleased with Miss Mannering's liveliness and attention, rattled away for her amusement and his own, the impatience of Colonel Mannering began to exceed all bounds. He declined sitting down at table, under pretence that he never eat supper; and traversed the parlour in which they were with hasty and impatient steps, now throwing up the window to gaze upon the dark lawn, now listening for the remote sound of the carriage advancing up the avenue. At length, in a feeling of uncontrollable impatience, he left the room, took his hat and cloak, and pursued his walk up the avenue, as if his so doing would hasten the approach of those whom he desired to see. 'I really wish,' said Miss Bertram,' Colonel Mannering would not venture out after nightfall. You must have heard, Mr. Pleydell, what a cruel fright we had.'

‘O, with the smugglers?’ replied the Advocate; ‘they are old friends of mine. I was the means of bringing some of them to justice a long time since, when sheriff of this county.’

‘And then the alarm we had immediately afterwards,’ added Miss Bertram, ‘from the vengeance of one of these wretches.’

‘When young Hazlewood was hurt; I heard of that too.’

‘Imagine, my dear Mr. Pleydell,’ continued Lucy, ‘how much Miss Mannering and I were alarmed when a ruffian, equally dreadful for his great strength and the sternness of his features, rushed out upon us!’

‘You must know, Mr. Pleydell,’ said Julia, unable to suppress her resentment at this undesigned aspersion of her admirer, ‘that young Hazlewood is so handsome in the eyes of the young ladies of this country that they think every person shocking who comes near him.’

‘Oho!’ thought Pleydell, who was by profession an observer of tones and gestures,’ there’s something wrong here between my young friends.’--’Well, Miss Mannering, I have not seen young Hazlewood since he was a boy, so the ladies may be perfectly right; but I can assure you, in spite of your scorn, that if you want to see handsome men you must go to Holland; the prettiest fellow I ever saw was a Dutchman, in spite of his being called Vanbost, or Vanbuster, or some such barbarous name. He will not be quite so handsome now, to be sure.’

It was now Julia’s turn to look a little out of countenance at the chance hit of her learned admirer, but that instant the Colonel entered the room. ‘I can hear nothing of them yet,’ he said; ‘still, however, we will not separate. Where is Dominie Sampson?’

‘Here, honoured sir.’

‘What is that book you hold in your hand, Mr. Sampson?’

‘It’s even the learned De Lyra, sir. I would crave his honour Mr. Pleydell’s judgment, always with his best leisure, to expound a disputed passage.’

‘I am not in the vein, Mr. Sampson,’ answered Pleydell; ‘here’s metal more attractive. I do not despair to engage these two young ladies in a glee or a catch, wherein I, even I myself, will adventure myself for the bass part. Hang De Lyra, man; keep him for a fitter season.’

The disappointed Dominie shut his ponderous tome, much marvelling in his mind how a person possessed of the lawyer’s erudition could give his mind to these frivolous toys. But the Counsellor, indifferent to the high character for learning which he was trifling away, filled himself a large glass of Burgundy, and, after preluding a little with a voice somewhat the worse for the wear, gave the ladies a courageous invitation to join in ‘We be Three Poor Mariners,’ and accomplished his own part therein with great eclat.

‘Are you not withering your roses with sitting up so late, my young ladies?’ said the Colonel.

‘Not a bit, sir,’ answered Julia; ‘your friend Mr. Pleydell threatens to become a pupil of Mr. Sampson’s to-morrow, so we must make the most of our conquest to-night.’

This led to another musical trial of skill, and that to lively conversation. At length, when the solitary sound of one o’clock had long since resounded on the ebon ear of night, and the next signal of the advance of time was close approaching, Mannering, whose impatience had long subsided into disappointment and despair, looked at his watch and said, ‘We must now give them up,’ when at that instant--But what then befell will require a separate chapter.

CHAPTER XXI

JUSTICE This does indeed confirm each circumstance
The gipsy told!
No orphan, nor without a friend art thou.
I am thy father, HERE'S thy mother, THERE
Thy uncle, THIS thy first cousin, and THESE
Are all thy near relations!

The Critic.

As Mannering replaced his watch, he heard a distant and hollow sound. 'It is a carriage for certain; no, it is but the sound of the wind among the leafless trees. Do come to the window, Mr. Pleydell.' The Counsellor, who, with his large silk handkerchief in his hand, was expatiating away to Julia upon some subject which he thought was interesting, obeyed the summons, first, however, wrapping the handkerchief round his neck by way of precaution against the cold air. The sound of wheels became now very perceptible, and Pleydell, as if he had reserved all his curiosity till that moment, ran out to the hall. The Colonel rung for Barnes to desire that the persons who came in the carriage might be shown into a separate room, being altogether uncertain whom it might contain. It stopped, however, at the door before his purpose could be fully explained. A moment after Mr. Pleydell called out, 'Here's our Liddesdale friend, I protest, with a strapping young fellow of the same calibre.' His voice arrested Dinmont, who recognised him with equal surprise and pleasure. 'Od, if it's your honour we'll a' be as right and tight as thack and rape can make us.'

But while the farmer stopped to make his bow, Bertram, dizzied with the sudden glare of light, and bewildered with the circumstances of his situation, almost unconsciously entered the open door of the parlour, and confronted the Colonel, who was just advancing towards it. The strong light of the apartment left no doubt of his identity, and he himself was as much confounded with the appearance of those to whom he so unexpectedly presented himself as they were by the sight of so utterly unlooked-for an object. It must be remembered that each individual present had their own peculiar

reasons for looking with terror upon what seemed at first sight a spectral apparition. Mannering saw before him the man whom he supposed he had killed in India; Julia beheld her lover in a most peculiar and hazardous situation; and Lucy Bertram at once knew the person who had fired upon young Hazlewood. Bertram, who interpreted the fixed and motionless astonishment of the Colonel into displeasure at his intrusion, hastened to say that it was involuntary, since he had been hurried hither without even knowing whither he was to be transported.

'Mr. Brown, I believe!' said Colonel Mannering.

'Yes, sir,' replied the young man, modestly, but with firmness, 'the same you knew in India; and who ventures to hope, that what you did then know of him is not such as should prevent his requesting you would favour him with your attestation to his character as a gentleman and man of honour.'

'Mr. Brown, I have been seldom--never--so much surprised; certainly, sir, in whatever passed between us you have a right to command my favourable testimony.'

At this critical moment entered the Counsellor and Dinmont. The former beheld to his astonishment the Colonel but just recovering from his first surprise, Lucy Bertram ready to faint with terror, and Miss Mannering in an agony of doubt and apprehension, which she in vain endeavoured to disguise or suppress. 'What is the meaning of all this?' said he; 'has this young fellow brought the Gorgon's head in his hand? let me look at him. By Heaven!' he muttered to himself, 'the very image of old Ellangowan! Yes, the same manly form and handsome features, but with a world of more intelligence in the face. Yes! the witch has kept her word.' Then instantly passing to Lucy, 'Look at that man, Miss Bertram, my dear; have you never seen any one like him?'

Lucy had only ventured one glance at this object of terror, by which, however, from his remarkable height and appearance, she at once recognised the supposed assassin of young Hazlewood, a conviction which excluded, of course, the more favourable association of ideas which might have occurred on a closer view. 'Don't ask me about

him, sir,' said she, turning away her eyes; 'send him away, for Heaven's sake! we shall all be murdered!'

'Murdered! where's the poker?' said the Advocate in some alarm; 'but nonsense! we are three men besides the servants, and there is honest Liddesdale, worth half-a-dozen, to boot; we have the major vis upon our side. However, here, my friend Dandie--Davie--what do they call you? keep between that fellow and us for the protection of the ladies.'

'Lord! Mr. Pleydell,' said the astonished farmer, 'that's Captain Brown; d 'ye no ken the Captain?'

'Nay, if he's a friend of yours we may be safe enough,' answered Pleydell; 'but keep near him.'

All this passed with such rapidity that it was over before the Dominie had recovered himself from a fit of absence, shut the book which he had been studying in a corner, and, advancing to obtain a sight of the strangers, exclaimed at once upon beholding Bertram, 'If the grave can give up the dead, that is my dear and honoured master!'

'We're right after all, by Heaven! I was sure I was right,' said the Lawyer; 'he is the very image of his father. Come, Colonel, what do you think of, that you do not bid your guest welcome? I think--I believe--I trust we're right; never saw such a likeness! But patience; Dominie, say not a word. Sit down, young gentleman.'

'I beg pardon, sir; if I am, as I understand, in Colonel Mannering's house, I should wish first to know if my accidental appearance here gives offence, or if I am welcome?'

Mannering instantly made an effort. 'Welcome? most certainly, especially if you can point out how I can serve you. I believe I may have some wrongs to repair towards you, I have often suspected so; but your sudden and unexpected appearance, connected with painful recollections, prevented my saying at first, as I now say, that whatever has procured me the honour of this visit, it is an acceptable one.'

Bertram bowed with an air of distant yet civil acknowledgment to the grave courtesy of Mannering.

‘Julia, my love, you had better retire. Mr. Brown, you will excuse my daughter; there are circumstances which I perceive rush upon her recollection.’

Miss Mannering rose and retired accordingly; yet, as she passed Bertram, could not suppress the words, ‘Infatuated! a second time!’ but so pronounced as to be heard by him alone. Miss Bertram accompanied her friend, much surprised, but without venturing a second glance at the object of her terror. Some mistake she saw there was, and was unwilling to increase it by denouncing the stranger as an assassin. He was known, she saw, to the Colonel, and received as a gentleman; certainly he either was not the person she suspected or Hazlewood was right in supposing the shot accidental.

The remaining part of the company would have formed no bad group for a skilful painter. Each was too much embarrassed with his own sensations to observe those of the others. Bertram most unexpectedly found himself in the house of one whom he was alternately disposed to dislike as his personal enemy and to respect as the father of Julia. Mannering was struggling between his high sense of courtesy and hospitality, his joy at finding himself relieved from the guilt of having shed life in a private quarrel, and the former feelings of dislike and prejudice, which revived in his haughty mind at the sight of the object against whom he had entertained them. Sampson, supporting his shaking limbs by leaning on the back of a chair, fixed his eyes upon Bertram with a staring expression of nervous anxiety which convulsed his whole visage. Dinmont, enveloped in his loose shaggy great-coat, and resembling a huge bear erect upon his hinder legs, stared on the whole scene with great round eyes that witnessed his amazement.

The Counsellor alone was in his element: shrewd, prompt, and active, he already calculated the prospect of brilliant success in a strange, eventful, and mysterious lawsuit, and no young monarch, flushed with hopes, and at the head of a gallant army, could experience more glee when taking the field on his first campaign. He bustled about with great energy, and took the arrangement of the whole explanation upon himself.

‘Come, come, gentlemen, sit down; this is all in my province; you must let me arrange it for you. Sit down, my dear Colonel, and let me manage; sit down, Mr. Brown, aut quocunque alio nomine vocaris; Dominie, take your seat; draw in your chair, honest Liddesdale.’

‘I dinna ken, Mr. Pleydell,’ said Dinmont, looking at his dreadnought coat, then at the handsome furniture of the room; ‘I had maybe better gang some gate else, and leave ye till your cracks, I’m no just that weel put on.’

The Colonel, who by this time recognised Dandie, immediately went up and bid him heartily welcome; assuring him that, from what he had seen of him in Edinburgh, he was sure his rough coat and thick-soled boots would honour a royal drawing-room.

‘Na, na, Colonel, we’re just plain up-the-country folk; but nae doubt I would fain hear o’ ony pleasure that was gaun to happen the Captain, and I’m sure a’ will gae right if Mr. Pleydell will take his bit job in hand.’

‘You’re right, Dandie; spoke like a Hieland [Footnote: It may not be unnecessary to tell southern readers that the mountainous country in the south western borders of Scotland is called Hieland, though totally different from the much more mountainous and more extensive districts of the north, usually called Hielands.] oracle; and now be silent. Well, you are all seated at last; take a glass of wine till I begin my catechism methodically. And now,’ turning to Bertram, ‘my dear boy, do you know who or what you are?’

In spite of his perplexity the catechumen could not help laughing at this commencement, and answered, ‘Indeed, sir, I formerly thought I did; but I own late circumstances have made me somewhat uncertain.’

‘Then tell us what you formerly thought yourself.’

‘Why, I was in the habit of thinking and calling myself Vanbeest Brown, who served as a cadet or volunteer under Colonel Mannering, when he commanded the--regiment, in which capacity I was not unknown to him.’

‘There,’ said the Colonel, ‘I can assure Mr. Brown of his identity; and add, what his modesty may have forgotten, that he was distinguished as a young man of talent and spirit.’

‘So much the better, my dear sir,’ said Mr. Pleydell; ‘but that is to general character. Mr. Brown must tell us where he was born.’

‘In Scotland, I believe, but the place uncertain.’

‘Where educated?’

‘In Holland, certainly.’

‘Do you remember nothing of your early life before you left Scotland?’

‘Very imperfectly; yet I have a strong idea, perhaps more deeply impressed upon me by subsequent hard usage, that I was during my childhood the object of much solicitude and affection. I have an indistinct remembrance of a good-looking man whom I used to call papa, and of a lady who was infirm in health, and who, I think, must have been my mother; but it is an imperfect and confused recollection. I remember too a tall, thin, kind-tempered man in black, who used to teach me my letters and walk out with me; and I think the very last time--’

Here the Dominie could contain no longer. While every succeeding word served to prove that the child of his benefactor stood before him, he had struggled with the utmost difficulty to suppress his emotions; but when the juvenile recollections of Bertram turned towards his tutor and his precepts he was compelled to give way to his feelings. He rose hastily from his chair, and with clasped hands, trembling limbs, and streaming eyes, called out aloud, ‘Harry Bertram! look at me; was I not the man?’

‘Yes!’ said Bertram, starting from his seat as if a sudden light had burst in upon his mind; ‘yes; that was my name! And that is the voice and the figure of my kind old master!’

The Dominie threw himself into his arms, pressed him a thousand times to his bosom in convulsions of transport which shook his whole frame, sobbed hysterically, and at

length, in the emphatic language of Scripture, lifted up his voice and wept aloud. Colonel Mannering had recourse to his handkerchief; Pleydell made wry faces, and wiped the glasses of his spectacles; and honest Dinmont, after two loud blubbering explosions, exclaimed, 'Deil's in the man! he's garr'd me do that I haena done since my auld mither died.'

'Come, come,' said the Counsellor at last, 'silence in the court. We have a clever party to contend with; we must lose no time in gathering our information; for anything I know there may be something to be done before daybreak.'

'I will order a horse to be saddled if you please,' said the Colonel.

'No, no, time enough, time enough. But come, Dominie, I have allowed you a competent space to express your feelings. I must circumduce the term; you must let me proceed in my examination.'

The Dominie was habitually obedient to any one who chose to impose commands upon him: he sunk back into his chair, spread his chequered handkerchief over his face, to serve, as I suppose, for the Grecian painter's veil, and, from the action of his folded hands, appeared for a time engaged in the act of mental thanksgiving. He then raised his eyes over the screen, as if to be assured that the pleasing apparition had not melted into air; then again sunk them to resume his internal act of devotion, until he felt himself compelled to give attention to the Counsellor, from the interest which his questions excited.

'And now,' said Mr. Pleydell, after several minute inquiries concerning his recollection of early events--'and now, Mr. Bertram,--for I think we ought in future to call you by your own proper name--will you have the goodness to let us know every particular which you can recollect concerning the mode of your leaving Scotland?'

'Indeed, sir, to say the truth, though the terrible outlines of that day are strongly impressed upon my memory, yet somehow the very terror which fixed them there has

in a great measure confounded and confused the details. I recollect, however, that I was walking somewhere or other, in a wood, I think--'

'O yes, it was in Warroch wood, my dear,' said the Dominie.

'Hush, Mr. Sampson,' said the Lawyer.

'Yes, it was in a wood,' continued Bertram, as long past and confused ideas arranged themselves in his reviving recollection; 'and some one was with me; this worthy and affectionate gentleman, I think.'

'O, ay, ay, Harry, Lord bless thee; it was even I myself.'

'Be silent, Dominie, and don't interrupt the evidence,' said Pleydell. 'And so, sir?' to Bertram.

'And so, sir,' continued Bertram, 'like one of the changes of a dream, I thought I was on horseback before my guide.'

'No, no,' exclaimed Sampson, 'never did I put my own limbs, not to say thine, into such peril.'

'On my word, this is intolerable! Look ye, Dominie, if you speak another word till I give you leave, I will read three sentences out of the Black Acts, whisk my cane round my head three times, undo all the magic of this night's work, and conjure Harry Bertram back again into Vanbeest Brown.'

'Honoured and worthy sir,' groaned out the Dominie, 'I humbly crave pardon; it was but verbum volans.'

'Well, nolens volens, you must hold your tongue,' said Pleydell.

'Pray, be silent, Mr. Sampson,' said the Colonel; 'it is of great consequence to your recovered friend that you permit Mr. Pleydell to proceed in his inquiries.'

'I am mute,' said the rebuked Dominie.

'On a sudden,' continued Bertram, 'two or three men sprung out upon us, and we were pulled from horseback. I have little recollection of anything else, but that I tried

to escape in the midst of a desperate scuffle, and fell into the arms of a very tall woman who started from the bushes and protected me for some time; the rest is all confusion and dread, a dim recollection of a sea-beach and a cave, and of some strong potion which lulled me to sleep for a length of time. In short, it is all a blank in my memory until I recollect myself first an ill-used and half-starved cabin-boy aboard a sloop, and then a schoolboy in Holland, under the protection of an old merchant, who had taken some fancy for me.'

'And what account,' said Mr. Pleydell, 'did your guardian give of your parentage?'

'A very brief one,' answered Bertram, 'and a charge to inquire no farther. I was given to understand that my father was concerned in the smuggling trade carried on on the eastern coast of Scotland, and was killed in a skirmish with the revenue officers; that his correspondents in Holland had a vessel on the coast at the time, part of the crew of which were engaged in the affair, and that they brought me off after it was over, from a motive of compassion, as I was left destitute by my father's death. As I grew older there was much of this story seemed inconsistent with my own recollections, but what could I do? I had no means of ascertaining my doubts, nor a single friend with whom I could communicate or canvass them. The rest of my story is known to Colonel Mannering: I went out to India to be a clerk in a Dutch house; their affairs fell into confusion; I betook myself to the military profession, and, I trust, as yet I have not disgraced it.'

'Thou art a fine young fellow, I'll be bound for thee,' said Pleydell, 'and since you have wanted a father so long, I wish from my heart I could claim the paternity myself. But this affair of young Hazlewood--'

'Was merely accidental,' said Bertram. 'I was travelling in Scotland for pleasure, and, after a week's residence with my friend Mr. Dinmont, with whom I had the good fortune to form an accidental acquaintance--'

"It was my gude fortune that," said Dinmont. "Odd, my brains wad hae been knockit out by twa black-guards if it hadna been for his four quarters."

"Shortly after we parted at the town of----I lost my baggage by thieves, and it was while residing at Kippletringan I accidentally met the young gentleman. As I was approaching to pay my respects to Miss Mannering, whom I had known in India, Mr. Hazlewood, conceiving my appearance none of the most respectable, commanded me rather haughtily to stand back, and so gave occasion to the fray, in which I had the misfortune to be the accidental means of wounding him. And now, sir, that I have answered all your questions--"

"No, no, not quite all," said Pleydell, winking sagaciously; "there are some interrogatories which I shall delay till to-morrow, for it is time, I believe, to close the sederunt for this night, or rather morning."

"Well, then, sir," said the young man, "to vary the phrase, since I have answered all the questions which you have chosen to ask to-night, will you be so good as to tell me who you are that take such interest in my affairs, and whom you take me to be, since my arrival has occasioned such commotion?"

"Why, sir, for myself," replied the Counsellor, "I am Paulus Pleydell, an advocate at the Scottish bar; and for you, it is not easy to say distinctly who you are at present, but I trust in a short time to hail you by the title of Henry Bertram, Esq., representative of one of the oldest families in Scotland, and heir of Tailzie and provision to the estate of Ellangowan. Ay," continued he, shutting his eyes and speaking to himself, "we must pass over his father, and serve him heir to his grandfather Lewis, the entailer; the only wise man of his family, that I ever heard of."

They had now risen to retire to their apartments for the night, when Colonel Mannering walked up to Bertram, as he stood astonished at the Counsellor's words. "I give you joy," he said, "of the prospects which fate has opened before you. I was an early friend of your father, and chanced to be in the house of Ellangowan, as unexpectedly as you are now in mine, upon the very night in which you were born. I little knew this circumstance when--but I trust unkindness will be forgotten between us.

Believe me, your appearance here as Mr. Brown, alive and well, has relieved me from most painful sensations; and your right to the name of an old friend renders your presence as Mr. Bertram doubly welcome."

"And my parents?" said Bertram.

"Are both no more; and the family property has been sold, but I trust may be recovered. Whatever is wanted to make your right effectual I shall be most happy to supply."

"Nay, you may leave all that to me," said the Counsellor; "'t is my vocation, Hal; I shall make money of it."

"I'm sure it's no for the like o'me," observed Dinmont, "to speak to you gentlefolks; but if siller would help on the Captain's plea, and they say nae plea gangs ain weel without it--"

"Except on Saturday night," said Pleydell.

"Ay, but when your honour wadna take your fee ye wadna hae the cause neither, sae I'll ne'er fash you on a Saturday at e'en again. But I was saying, there's some siller in the spleuchan that's like the Captain's ain, for we've aye counted it such, baith Ailie and me."

'No, no, Liddesdale; no occasion, no occasion whatever. Keep thy cash to stock thy farm.'

'To stock my farm? Mr. Pleydell, your honour kens mony things, but ye dinna ken the farm o' Charlie's Hope; it's sae weel stockit already that we sell maybe sax hundred pounds off it ilka year, flesh and fell the gither; na, na.'

'Can't you take another then?'

'I dinna ken; the Deuke's no that fond o' led farms, and he canna bide to put away the auld tenantry; and then I wadna like mysell to gang about whistling [Footnote: See Note 7.] and raising the rent on my neighbours.'

‘What, not upon thy neighbour at Dawston--Devilstone--how d ‘ye call the place?’

‘What, on Jock o’ Dawston? hout na. He’s a camsteary chield, and fasheous about marches, and we’ve had some bits o’ splores thegither; but deil o’meif I wad wrang Jock o’ Dawston neither.’

‘Thou’rt an honest fellow,’ said the Lawyer; ‘get thee to bed. Thou wilt sleep sounder, I warrant thee, than many a man that throws off an embroidered coat and puts on a laced nightcap. Colonel, I see you are busy with our enfant trouve. But Barnes must give me a summons of wakening at seven to-morrow morning, for my servant’s a sleepy-headed fellow; and I daresay my clerk Driver has had Clarence’s fate, and is drowned by this time in a butt of your ale; for Mrs. Allan promised to make him comfortable, and she’ll soon discover what he expects from that engagement. Good-night, Colonel; good-night, Dominie Sampson; good-night, Dinmont the Downright; good-night, last of all, to the new-found representative of the Bertrams, and the Mac-Dingawaies, the Knarths, the Arths, the Godfreys, the Dennises, and the Rolands, and, last and dearest title, heir of tailzie and provision of the lands and barony of Ellangowan, under the settlement of Lewis Bertram, Esq., whose representative you are.’

And so saying, the old gentleman took his candle and left the room; and the company dispersed, after the Dominie had once more hugged and embraced his ‘little Harry Bertram,’ as he continued to call the young soldier of six feet high.

CHAPTER XXII

My imagination
Carries no favour in it but Bertram's;
I am undone, there is no living, none,
If Bertram be away.

--All's Well that Ends Well.

At the hour which he had appointed the preceding evening the indefatigable lawyer was seated by a good fire and a pair of wax candles, with a velvet cap on his head and a quilted silk nightgown on his person, busy arranging his memoranda of proofs and indications concerning the murder of Frank Kennedy. An express had also been despatched to Mr. Mac-Morlan, requesting his attendance at Woodbourne as soon as possible on business of importance. Dinmont, fatigued with the events of the evening before, and finding the accommodations of Woodbourne much preferable to those of Mac-Guffog, was in no hurry to rise. The impatience of Bertram might have put him earlier in motion, but Colonel Mannering had intimated an intention to visit him in his apartment in the morning, and he did not choose to leave it. Before this interview he had dressed himself, Barnes having, by his master's orders, supplied him with every accommodation of linen, etc., and now anxiously waited the promised visit of his landlord.

In a short time a gentle tap announced the Colonel, with whom Bertram held a long and satisfactory conversation. Each, however, concealed from the other one circumstance. Mannering could not bring himself to acknowledge the astrological prediction; and Bertram was, from motives which may be easily conceived, silent respecting his love for Julia. In other respects their intercourse was frank and grateful to both, and had latterly, upon the Colonel's part, even an approach to cordiality. Bertram carefully measured his own conduct by that of his host, and seemed rather to receive his offered kindness with gratitude and pleasure than to press for it with solicitation.

Miss Bertram was in the breakfast-parlour when Sampson shuffled in, his face all radiant with smiles--a circumstance so uncommon that Lucy's first idea was that somebody had been bantering him with an imposition, which had thrown him into this ecstasy. Having sate for some time rolling his eyes and gaping with his mouth like the great wooden head at Merlin's exhibition, he at length began--'And what do you think of him, Miss Lucy?'

'Think of whom, Mr. Sampson?' asked the young lady.

'Of Har--no--of him that you know about?' again demanded the Dominie.

'That I know about?' replied Lucy, totally at a loss to comprehend his meaning.

'Yes, the stranger, you know, that came last evening, in the post vehicle; he who shot young Hazelwood, ha, ha, ha!' burst forth the Dominie, with a laugh that sounded like neighing.

'Indeed, Mr. Sampson,' said his pupil, 'you have chosen a strange subject for mirth; I think nothing about the man, only I hope the outrage was accidental, and that we need not fear a repetition of it.'

'Accidental! ha, ha, ha!' again whinnied Sampson.

'Really, Mr. Sampson,' said Lucy, somewhat piqued, 'you are unusually gay this morning.'

'Yes, of a surety I am! ha, ha, ho! face-ti-ous, ho, ho, ha!'

'So unusually facetious, my dear sir,' pursued the young lady, 'that I would wish rather to know the meaning of your mirth than to be amused with its effects only.'

'You shall know it, Miss Lucy,' replied poor Abel. 'Do you remember your brother?'

'Good God, how can you ask me? No one knows better than you he was lost the very day I was born.'

'Very true, very true,' answered the Dominie, saddening at the recollection; 'I was strangely oblivious; ay, ay! too true. But you remember your worthy father?'

Zaid n. adwan

‘How should you doubt it, Mr. Sampson? it is not so many weeks since--’

‘True, true; ay, too true,’ replied the Dominie, his Houyhnhnm laugh sinking into a hysterical giggle. ‘I will be facetious no more under these remembrances; but look at that young man!’

Bertram at this instant entered the room. ‘Yes, look at him well, he is your father’s living image; and as God has deprived you of your dear parents--O, my children, love one another!’

‘It is indeed my father’s face and form,’ said Lucy, turning very pale. Bertram ran to support her, the Dominie to fetch water to throw upon her face (which in his haste he took from the boiling tea-urn), when fortunately her colour, returning rapidly, saved her from the application of this ill-judged remedy. ‘I conjure you to tell me, Mr. Sampson,’ she said, in an interrupted yet solemn voice, ‘is this my brother?’

‘It is, it is! Miss Lucy, it is little Harry Bertram, as sure as God’s sun is in that heaven!’

‘And this is my sister?’ said Bertram, giving way to all that family affection which had so long slumbered in his bosom for want of an object to expand itself upon.

‘It is, it is!--it is Miss Lucy Bertram,’ ejaculated Sampson, ‘whom by my poor aid you will find perfect in the tongues of France and Italy, and even of Spain, in reading and writing her vernacular tongue, and in arithmetic and book-keeping by double and single entry. I say nothing of her talents of shaping and hemming and governing a household, which, to give every one their due, she acquired not from me but from the housekeeper; nor do I take merit for her performance upon stringed instruments, whereunto the instructions of an honourable young lady of virtue and modesty, and very facetious withal--Miss Julia Mannering--hath not meanly contributed. Suum cuique tribuito.’

‘You, then,’ said Bertram to his sister, ‘are all that remains to me! Last night, but more fully this morning, Colonel Mannering gave me an account of our family misfortunes, though without saying I should find my sister here.’

‘That,’ said Lucy, ‘he left to this gentleman to tell you--one of the kindest and most faithful of friends, who soothed my father’s long sickness, witnessed his dying moments, and amid the heaviest clouds of fortune would not desert his orphan.’

‘God bless him for it!’ said Bertram, shaking the Dominie’s hand;’ he deserves the love with which I have always regarded even that dim and imperfect shadow of his memory which my childhood retained.’

‘And God bless you both, my dear children!’ said Sampson; ‘if it had not been for your sake I would have been contented--had Heaven’s pleasure so been--to lay my head upon the turf beside my patron.’

‘But I trust,’ said Bertram--’I am encouraged to hope, we shall all see better days. All our wrongs shall be redressed, since Heaven has sent me means and friends to assert my right.’

‘Friends indeed!’ echoed the Dominie, ‘and sent, as you truly say, by HIM to whom I early taught you to look up as the source of all that is good. There is the great Colonel Mannering from the Eastern Indies, a man of war from his birth upwards, but who is not the less a man of great erudition, considering his imperfect opportunities; and there is, moreover, the great advocate Mr. Pleydell, who is also a man of great erudition, but who descendeth to trifles unbeseeming thereof; and there is Mr. Andrew Dinmont, whom I do not understand to have possession of much erudition, but who, like the patriarchs of old, is cunning in that which belongeth to flocks and herds; lastly, there is even I myself, whose opportunities of collecting erudition, as they have been greater than those of the aforesaid valuable persons, have not, if it becomes me to speak, been pretermitted by me, in so far as my poor faculties have enabled me to profit by them. Of a surety, little Harry, we must speedily resume our studies. I will begin from the foundation. Yes, I will reform your education upward from the true knowledge of English grammar even to that of the Hebrew or Chaldaic tongue.’

zaid n. adwan

The reader may observe that upon this occasion Sampson was infinitely more profuse of words than he had hitherto exhibited himself. The reason was that, in recovering his pupil, his mind went instantly back to their original connexion, and he had, in his confusion of ideas, the strongest desire in the world to resume spelling lessons and half-text with young Bertram. This was the more ridiculous, as towards Lucy he assumed no such powers of tuition. But she had grown up under his eye, and had been gradually emancipated from his government by increase in years and knowledge, and a latent sense of his own inferior tact in manners, whereas his first ideas went to take up Harry pretty nearly where he had left him. From the same feelings of reviving authority he indulged himself in what was to him a profusion of language; and as people seldom speak more than usual without exposing themselves, he gave those whom he addressed plainly to understand that, while he deferred implicitly to the opinions and commands, if they chose to impose them, of almost every one whom he met with, it was under an internal conviction that in the article of eru-di-ti-on, as he usually pronounced the word, he was infinitely superior to them all put together. At present, however, this intimation fell upon heedless ears, for the brother and sister were too deeply engaged in asking and receiving intelligence concerning their former fortunes to attend much to the worthy Dominie. When Colonel Mannering left Bertram he went to Julia's dressing-room and dismissed her attendant. 'My dear sir,' she said as he entered, 'you have forgot our vigils last night, and have hardly allowed me time to comb my hair, although you must be sensible how it stood on end at the various wonders which took place.'

'It is with the inside of your head that I have some business at present, Julia; I will return the outside to the care of your Mrs. Mincing in a few minutes.'

'Lord, papa,' replied Miss Mannering, 'think how entangled all my ideas are, and you to propose to comb them out in a few minutes! If Mincing were to do so in her department she would tear half the hair out of my head.'

Zain Adwan

‘Well then, tell me,’ said the Colonel, ‘where the entanglement lies, which I will try to extricate with due gentleness?’

‘O, everywhere,’ said the young lady; ‘the whole is a wild dream.’

‘Well then, I will try to unriddle it.’ He gave a brief sketch of the fate and prospects of Bertram, to which Julia listened with an interest which she in vain endeavoured to disguise. ‘Well,’ concluded her father, ‘are your ideas on the subject more luminous?’

‘More confused than ever, my dear sir,’ said Julia. ‘Here is this young man come from India, after he had been supposed dead, like Aboulfouaris the great voyager to his sister Canzade and his provident brother Hour. I am wrong in the story, I believe--Canzade was his wife; but Lucy may represent the one and the Dominie the other. And then this lively crack-brained Scotch lawyer appears like a pantomime at the end of a tragedy. And then how delightful it will be if Lucy gets back her fortune.’

‘Now I think,’ said the Colonel, ‘that the most mysterious part of the business is, that Miss Julia Mannering, who must have known her father’s anxiety about the fate of this young man Brown, or Bertram, as we must now call him, should have met him when Hazlewood’s accident took place, and never once mentioned to her father a word of the matter, but suffered the search to proceed against this young gentleman as a suspicious character and assassin.’

Julia, much of whose courage had been hastily assumed to meet the interview with her father, was now unable to rally herself; she hung down her head in silence, after in vain attempting to utter a denial that she recollected Brown when she met him.

‘No answer! Well, Julia,’ continued her father, gravely but kindly, ‘allow me to ask you, Is this the only time you have seen Brown since his return from India? Still no answer. I must then naturally suppose that it is not the first time. Still no reply. Julia Mannering, will you have the kindness to answer me? Was it this young man who came under your window and conversed with you during your residence at Mervyn Hall? Julia, I command--I entreat you to be candid.’

Miss Mannering raised her head. ‘I have been, sir--I believe I am still--very foolish; and it is perhaps more hard upon me that I must meet this gentleman, who has been, though not the cause entirely, yet the accomplice, of my folly, in your presence.’ Here she made a full stop.

‘I am to understand, then,’ said Mannering, ‘that this was the author of the serenade at Mervyn Hall?’

There was something in this allusive change of epithet that gave Julia a little more courage. ‘He was indeed, sir; and if I am very wrong, as I have often thought, I have some apology.’

‘And what is that?’ answered the Colonel, speaking quick, and with something of harshness.

‘I will not venture to name it, sir; but (she opened a small cabinet, and put some letters into his hands) I will give you these, that you may see how this intimacy began, and by whom it was encouraged.’

Mannering took the packet to the window--his pride forbade a more distant retreat. He glanced at some passages of the letters with an unsteady eye and an agitated mind; his stoicism, however, came in time to his aid--that philosophy which, rooted in pride, yet frequently bears the fruits of virtue. He returned towards his daughter with as firm an air as his feelings permitted him to assume.

‘There is great apology for you, Julia, as far as I can judge from a glance at these letters; you have obeyed at least one parent. Let us adopt a Scotch proverb the Dominie quoted the other day--“Let bygones be bygones, and fair play for the future.” I will never upbraid you with your past want of confidence; do you judge of my future intentions by my actions, of which hitherto you have surely had no reason to complain. Keep these letters; they were never intended for my eye, and I would not willingly read more of them than I have done, at your desire and for your exculpation. And now, are we friends? Or rather, do you understand me?’

‘O, my dear, generous father,’ said Julia, throwing herself into his arms, ‘why have I ever for an instant misunderstood you?’

‘No more of that, Julia,’ said the Colonel; ‘we have both been to blame. He that is too proud to vindicate the affection and confidence which he conceives should be given without solicitation, must meet much, and perhaps deserved, disappointment. It is enough that one dearest and most regretted member of my family has gone to the grave without knowing me; let me not lose the confidence of a child who ought to love me if she really loves herself.’

‘O, no danger, no fear!’ answered Julia; ‘let me but have your approbation and my own, and there is no rule you can prescribe so severe that I will not follow.’

‘Well, my love,’ kissing her forehead, ‘I trust we shall not call upon you for anything too heroic. With respect to this young gentleman’s addresses, I expect in the first place that all clandestine correspondence, which no young woman can entertain for a moment without lessening herself in her own eyes and in those of her lover--I request, I say, that clandestine correspondence of every kind may be given up, and that you will refer Mr. Bertram to me for the reason. You will naturally wish to know what is to be the issue of such a reference. In the first place, I desire to observe this young gentleman’s character more closely than circumstances, and perhaps my own prejudices, have permitted formerly. I should also be glad to see his birth established. Not that I am anxious about his getting the estate of Ellangowan, though such a subject is held in absolute indifference nowhere except in a novel; but certainly Henry Bertram, heir of Ellangowan, whether possessed of the property of his ancestors or not, is a very different person from Vanbeest Brown, the son of nobody at all. His fathers, Mr. Pleydell tells me, are distinguished in history as following the banners of their native princes, while our own fought at Cressy and Poirtiers. In short, I neither give nor withhold my approbation, but I expect you will redeem past errors; and, as you can now unfortunately only have recourse to ONE parent, that you will show the duty of a child

by reposing that confidence in me which I will say my inclination to make you happy renders a filial debt upon your part.'

The first part of this speech affected Julia a good deal, the comparative merit of the ancestors of the Bertrams and Mannerings excited a secret smile, but the conclusion was such as to soften a heart peculiarly open to the feelings of generosity. 'No, my dear sir,' she said, extending her hand,' receive my faith, that from this moment you shall be the first person consulted respecting what shall pass in future between Brown--I mean Bertram--and me; and that no engagement shall be undertaken by me excepting what you shall immediately know and approve of. May I ask if Mr. Bertram is to continue a guest at Woodbourne?'

'Certainly,' said the Colonel, 'while his affairs render it advisable.'

'Then, sir, you must be sensible, considering what is already past, that he will expect some reason for my withdrawing, I believe I must say the encouragement, which he may think I have given.'

'I expect, Julia,' answered Mannering, 'that he will respect my roof, and entertain some sense perhaps of the services I am desirous to render him, and so will not insist upon any course of conduct of which I might have reason to complain; and I expect of you that you will make him sensible of what is due to both.'

'Then, sir, I understand you, and you shall be implicitly obeyed.'

'Thank you, my love; my anxiety (kissing her) is on your account. Now wipe these witnesses from your eyes, and so to breakfast.'

Zaid n. adwan

CHAPTER XXIII

And Sheriff I will engage my word to you,
That I will by to morrow dinner time,
Send him to answer thee or any man,
For anything he shall be charged withal

Henry IV Part I

When the several by-plays, as they may be termed, had taken place among the individuals of the Woodbourne family, as we have intimated in the preceding chapter, the breakfast party at length assembled, Dandie excepted, who had consulted his taste in viands, and perhaps in society, by partaking of a cup of tea with Mrs. Allan, just laced with two teaspoonfuls of cogniac, and reinforced with various slices from a huge round of beef. He had a kind of feeling that he could eat twice as much, and speak twice as much, with this good dame and Barnes as with the grand folk in the parlour. Indeed, the meal of this less distinguished party was much more mirthful than that in the higher circle, where there was an obvious air of constraint on the greater part of the assistants. Julia dared not raise her voice in asking Bertram if he chose another cup of tea. Bertram felt embarrassed while eating his toast and butter under the eye of Mannering. Lucy, while she indulged to the uttermost her affection for her recovered brother, began to think of the quarrel betwixt him and Hazlewood. The Colonel felt the painful anxiety natural to a proud mind when it deems its slightest action subject for a moment to the watchful construction of others. The Lawyer, while sedulously buttering his roll, had an aspect of unwonted gravity, arising perhaps from the severity of his morning studies. As for the Dominie, his state of mind was ecstatic! He looked at Bertram--he looked at Lucy--he whimpered--he sniggled--he grinned--he committed all manner of solecisms in point of form: poured the whole cream (no unlucky mistake) upon the plate of porridge which was his own usual breakfast, threw the slops of what he called his

‘crowning dish of tea’ into the sugar-dish instead of the slop-basin, and concluded with spilling the scalding liquor upon old Plato, the Colonel’s favourite spaniel, who received the libation with a howl that did little honour to his philosophy.

The Colonel’s equanimity was rather shaken by this last blunder. ‘Upon my word, my good friend, Mr. Sampson, you forget the difference between Plato and Zenocrates.’

‘The former was chief of the Academics, the latter of the Stoics,’ said the Dominie, with some scorn of the supposition.

‘Yes, my dear sir, but it was Zenocrates, not Plato, who denied that pain was an evil.’

‘I should have thought,’ said Pleydell, ‘that very respectable quadruped which is just now limping out of the room upon three of his four legs was rather of the Cynic school.’

‘Very well hit off. But here comes an answer from Mac-Morlan.’

It was unfavourable. Mrs. Mac-Morlan sent her respectful compliments, and her husband had been, and was, detained by some alarming disturbances which had taken place the preceding night at Portanferry, and the necessary investigation which they had occasioned.

‘What’s to be done now. Counsellor?’ said the Colonel to Pleydell.

‘Why, I wish we could have seen Mac-Morlan,’ said the Counsellor, ‘who is a sensible fellow himself, and would besides have acted under my advice. But there is little harm. Our friend here must be made sui juris. He is at present an escaped prisoner, the law has an awkward claim upon him; he must be placed rectus in curia, that is the first object; for which purpose, Colonel, I will accompany you in your carriage down to Hazlewood House. The distance is not great; we will offer our bail, and I am confident I can easily show Mr.--I beg his pardon--Sir Robert Hazlewood, the necessity of receiving it.’

‘With all my heart,’ said the Colonel; and, ringing the bell, gave the necessary orders. ‘And what is next to be done?’

‘We must get hold of Mac-Morlan, and look out for more proof.’

‘Proof!’ said the Colonel, ‘the thing is as clear as daylight: here are Mr. Sampson and Miss Bertram, and you yourself at once recognise the young gentleman as his father’s image; and he himself recollects all the very peculiar circumstances preceding his leaving this country. What else is necessary to conviction?’

‘To moral conviction nothing more, perhaps,’ said the experienced lawyer, ‘but for legal proof a great deal. Mr. Bertram’s recollections are his own recollections merely, and therefore are not evidence in his own favour. Miss Bertram, the learned Mr. Sampson, and I can only say, what every one who knew the late Ellangowan will readily agree in, that this gentleman is his very picture. But that will not make him Ellangowan’s son and give him the estate.’

‘And what will do so?’ said the Colonel.

‘Why, we must have a distinct probation. There are these gipsies; but then, alas! they are almost infamous in the eye of law, scarce capable of bearing evidence, and Meg Merrilies utterly so, by the various accounts which she formerly gave of the matter, and her impudent denial of all knowledge of the fact when I myself examined her respecting it.’

‘What must be done then?’ asked Mannering.

‘We must try,’ answered the legal sage, ‘what proof can be got at in Holland among the persons by whom our young friend was educated. But then the fear of being called in question for the murder of the gauger may make them silent; or, if they speak, they are either foreigners or outlawed smugglers. In short, I see doubts.’

‘Under favour, most learned and honoured sir,’ said the Dominie, ‘I trust HE who hath restored little Harry Bertram to his friends will not leave His own work imperfect.’

‘I trust so too, Mr. Sampson,’ said Pleydell; ‘but we must use the means; and I am afraid we shall have more difficulty in procuring them than I at first thought. But a faint heart never won a fair lady; and, by the way (apart to Miss Mannering, while Bertram

was engaged with his sister), there's a vindication of Holland for you! What smart fellows do you think Leyden and Utrecht must send forth, when such a very genteel and handsome young man comes from the paltry schools of Middleburgh?'

'Of a verity,' said the Dominie, jealous of the reputation of the Dutch seminary--'of a verity, Mr. Pleydell, but I make it known to you that I myself laid the foundation of his education.'

'True, my dear Dominie,' answered the Advocate, 'that accounts for his proficiency in the graces, without question. But here comes your carriage, Colonel. Adieu, young folks. Miss Julia, keep your heart till I come back again; let there be nothing done to prejudice my right whilst I am non valens agere.'

Their reception at Hazlewood House was more cold and formal than usual; for in general the Baronet expressed great respect for Colonel Mannering, and Mr. Pleydell, besides being a man of good family and of high general estimation, was Sir Robert's old friend. But now he seemed dry and embarrassed in his manner. 'He would willingly,' he said, 'receive bail, notwithstanding that the offence had been directly perpetrated, committed, and done against young Hazlewood of Hazlewood; but the young man had given himself a fictitious description, and was altogether that sort of person who should not be liberated, discharged, or let loose upon society; and therefore--'

'I hope, Sir Robert Hazlewood,' said the Colonel, 'you do not mean to doubt my word when I assure you that he served under me as cadet in India?'

'By no means or account whatsoever. But you call him a cadet; now he says, avers, and upholds that he was a captain, or held a troop in your regiment.'

'He was promoted since I gave up the command.'

'But you must have heard of it?'

'No. I returned on account of family circumstances from India, and have not since been solicitous to hear particular news from the regiment; the name of Brown, too, is

so common that I might have seen his promotion in the “Gazette” without noticing it. But a day or two will bring letters from his commanding officer.’

‘But I am told and informed, Mr. Pleydell,’ answered Sir Robert, still hesitating, ‘that he does not mean to abide by this name of Brown, but is to set up a claim to the estate of Ellangowan, under the name of Bertram.’

‘Ay, who says that?’ said the Counsellor.

‘Or,’ demanded the soldier, ‘whoever says so, does that give a right to keep him in prison?’

‘Hush, Colonel,’ said the Lawyer; ‘I am sure you would not, any more than I, countenance him if he prove an impostor. And, among friends, who informed you of this, Sir Robert?’

‘Why, a person, Mr. Pleydell,’ answered the Baronet, ‘who is peculiarly interested in investigating, sifting, and clearing out this business to the bottom; you will excuse my being more particular.’

‘O, certainly,’ replied Pleydell; ‘well, and he says--?’

‘He says that it is whispered about among tinkers, gipsies, and other idle persons that there is such a plan as I mentioned to you, and that this young man, who is a bastard or natural son of the late Ellangowan, is pitched upon as the impostor from his strong family likeness.’

‘And was there such a natural son, Sir Robert?’ demanded the Counsellor.

‘O, certainly, to my own positive knowledge. Ellangowan had him placed as cabin-boy or powder-monkey on board an armed sloop or yacht belonging to the revenue, through the interest of the late Commissioner Bertram, a kinsman of his own.’

‘Well, Sir Robert,’ said the Lawyer, taking the word out of the mouth of the impatient soldier, ‘you have told me news. I shall investigate them, and if I find them true, certainly Colonel Mannering and I will not countenance this young man. In the

meanwhile, as we are all willing to make him forthcoming to answer all complaints against him, I do assure you, you will act most illegally, and incur heavy responsibility, if you refuse our bail.'

'Why, Mr. Pleydell,' said Sir Robert, who knew the high authority of the Counsellor's opinion, 'as you must know best, and as you promise to give up this young man--'

'If he proves an impostor,' replied the Lawyer, with some emphasis.

'Ay, certainly. Under that condition I will take your bail; though I must say an obliging, well-disposed, and civil neighbour of mine, who was himself bred to the law, gave me a hint or caution this morning against doing so. It was from him I learned that this youth was liberated and had come abroad, or rather had broken prison. But where shall we find one to draw the bail-bond?'

'Here,' said the Counsellor, applying himself to the bell, 'send up my clerk, Mr. Driver; it will not do my character harm if I dictate the needful myself.' It was written accordingly and signed, and, the Justice having subscribed a regular warrant for Bertram alias Brown's discharge, the visitors took their leave.

Each threw himself into his own corner of the post-chariot, and said nothing for some time. The Colonel first broke silence: 'So you intend to give up this poor young fellow at the first brush?'

'Who, I?' replied the Counsellor. 'I will not give up one hair of his head, though I should follow them to the court of last resort in his behalf; but what signified mooting points and showing one's hand to that old ass? Much better he should report to his prompter, Glossin, that we are indifferent or lukewarm in the matter. Besides, I wished to have a peep at the enemies' game.'

'Indeed!' said the soldier. 'Then I see there are stratagems in law as well as war. Well, and how do you like their line of battle?'

'Ingenious,' said Mr. Pleydell, 'but I think desperate; they are finessing too much, a common fault on such occasions.'

During this discourse the carriage rolled rapidly towards Woodbourne without anything occurring worthy of the reader's notice, excepting their meeting with young Hazlewood, to whom the Colonel told the extraordinary history of Bertram's reappearance, which he heard with high delight, and then rode on before to pay Miss Bertram his compliments on an event so happy and so unexpected.

We return to the party at Woodbourne. After the departure of Mannering, the conversation related chiefly to the fortunes of the Ellangowan family, their domains, and their former power. 'It was, then, under the towers of my fathers,' said Bertram, 'that I landed some days since, in circumstances much resembling those of a vagabond! Its mouldering turrets and darksome arches even then awakened thoughts of the deepest interest, and recollections which I was unable to decipher. I will now visit them again with other feelings, and, I trust, other and better hopes.'

'Do not go there now,' said his sister. 'The house of our ancestors is at present the habitation of a wretch as insidious as dangerous, whose arts and villainy accomplished the ruin and broke the heart of our unhappy father.'

'You increase my anxiety,' replied her brother, 'to confront this miscreant, even in the den he has constructed for himself; I think I have seen him.'

'But you must consider,' said Julia, 'that you are now left under Lucy's guard and mine, and are responsible to us for all your motions, consider, I have not been a lawyer's mistress twelve hours for nothing, and I assure you it would be madness to attempt to go to Ellangowan just now. The utmost to which I can consent is, that we shall walk in a body to the head of the Woodbourne avenue, and from that perhaps we may indulge you with our company as far as a rising ground in the common, whence your eyes may be blessed with a distant prospect of those gloomy towers which struck so strongly your sympathetic imagination.'

The party was speedily agreed upon; and the ladies, having taken their cloaks, followed the route proposed, under the escort of Captain Bertram. It was a pleasant

winter morning, and the cool breeze served only to freshen, not to chill, the fair walkers. A secret though unacknowledged bond of kindness combined the two ladies, and Bertram, now hearing the interesting accounts of his own family, now communicating his adventures in Europe and in India, repaid the pleasure which he received. Lucy felt proud of her brother, as well from the bold and manly turn of his sentiments as from the dangers he had encountered, and the spirit with which he had surmounted them. And Julia, while she pondered on her father's words, could not help entertaining hopes that the independent spirit which had seemed to her father presumption in the humble and plebeian Brown would have the grace of courage, noble bearing, and high blood in the far-descended heir of Ellangowan.

They reached at length the little eminence or knoll upon the highest part of the common, called Gibbie's Knowe--a spot repeatedly mentioned in this history as being on the skirts of the Ellangowan estate. It commanded a fair variety of hill and dale, bordered with natural woods, whose naked boughs at this season relieved the general colour of the landscape with a dark purple hue; while in other places the prospect was more formally intersected by lines of plantation, where the Scotch firs displayed their variety of dusky green. At the distance of two or three miles lay the bay of Ellangowan, its waves rippling under the influence of the western breeze. The towers of the ruined castle, seen high over every object in the neighbourhood, received a brighter colouring from the wintry sun.

'There,' said Lucy Bertram, pointing them out in the distance, 'there is the seat of our ancestors. God knows, my dear brother, I do not covet in your behalf the extensive power which the lords of these ruins are said to have possessed so long, and sometimes to have used so ill. But, O that I might see you in possession of such relics of their fortune as should give you an honourable independence, and enable you to stretch your hand for the protection of the old and destitute dependents of our family, whom our poor father's death--'

‘True, my dearest Lucy,’ answered the young heir of Ellangowan; ‘and I trust, with the assistance of Heaven, which has so far guided us, and with that of these good friends, whom their own generous hearts have interested in my behalf, such a consummation of my hard adventures is now not unlikely. But as a soldier I must look with some interest upon that worm-eaten hold of ragged stone; and if this undermining scoundrel who is now in possession dare to displace a pebble of it--’

He was here interrupted by Dinmont, who came hastily after them up the road, unseen till he was near the party: ‘Captain, Captain! ye’re wanted. Ye’re wanted by her ye ken o’.’

And immediately Meg Merrilies, as if emerging out of the earth, ascended from the hollow way and stood before them. ‘I sought ye at the house,’ she said, ‘and found but him (pointing to Dinmont). But ye are right, and I was wrang; it is HERE we should meet, on this very spot, where my eyes last saw your father. Remember your promise and follow me.’

zaid n. adwan

CHAPTER XXIV

To hail the king in seemly sort
The ladie was full fain,
But King Arthur, all sore amazed,
No answer made again
‘What wight art thou,’ the ladie said,
‘That will not speak to me?
Sir, I may chance to ease thy pain,
Though I be foul to see’

The Marriage of Sir Gawaine.

The fairy bride of Sir Gawaine, while under the influence of the spell of her wicked step-mother, was more decrepit probably, and what is commonly called more ugly, than Meg Merrilies; but I doubt if she possessed that wild sublimity which an excited imagination communicated to features marked and expressive in their own peculiar character, and to the gestures of a form which, her sex considered, might be termed gigantic. Accordingly, the Knights of the Round Table did not recoil with more terror from the apparition of the loathly lady placed between 'an oak and a green holly,' than Lucy Bertram and Julia Mannering did from the appearance of this Galwegian sibyl upon the common of Ellangowan.

'For God's sake,' said Julia, pulling out her purse, 'give that dreadful woman something and bid her go away.'

'I cannot,' said Bertram; 'I must not offend her.'

'What keeps you here?' said Meg, exalting the harsh and rough tones of her hollow voice. 'Why do you not follow? Must your hour call you twice? Do you remember your oath? "Were it at kirk or market, wedding or burial,"'--and she held high her skinny forefinger in a menacing attitude.

Bertram--turned round to his terrified companions. 'Excuse me for a moment; I am engaged by a promise to follow this woman.'

'Good Heavens! engaged to a madwoman?' said Julia.

'Or to a gipsy, who has her band in the wood ready to murder you!' said Lucy.

'That was not spoken like a bairn of Ellangowan,' said Meg, frowning upon Miss Bertram. 'It is the ill-doers are ill-dreaders.'

'In short, I must go,' said Bertram, 'it is absolutely necessary; wait for me five minutes on this spot.'

‘Five minutes?’ said the gipsy, ‘five hours may not bring you here again.’

‘Do you hear that?’ said Julia; ‘for Heaven’s sake do not go!’

‘I must, I must; Mr. Dinmont will protect you back to the house.’

‘No,’ said Meg, ‘he must come with you; it is for that he is here. He maun take part wi’ hand and heart; and weel his part it is, for redding his quarrel might have cost you dear.’

‘Troth, Luckie, it’s very true,’ said the steady farmer; ‘and ere I turn back frae the Captain’s side I’ll show that I haena forgotten ‘t.’

‘O yes,’ exclaimed both the ladies at once, ‘let Mr. Dinmont go with you, if go you must, on this strange summons.’

‘Indeed I must,’ answered Bertram; ‘but you see I am safely guarded. Adieu for a short time; go home as fast as you can.’

zaid n. adwan

ENLARGE

He pressed his sister's hand, and took a yet more affectionate farewell of Julia with his eyes. Almost stupefied with surprise and fear, the young ladies watched with anxious looks the course of Bertram, his companion, and their extraordinary guide. Her tall figure moved across the wintry heath with steps so swift, so long, and so steady that she appeared rather to glide than to walk. Bertram and Dinmont, both tall men, apparently scarce equalled her in height, owing to her longer dress and high head-gear.

She proceeded straight across the common, without turning aside to the winding path by which passengers avoided the inequalities and little rills that traversed it in different directions. Thus the diminishing figures often disappeared from the eye, as they dived into such broken ground, and again ascended to sight when they were past the hollow. There was something frightful and unearthly, as it were, in the rapid and undeviating course which she pursued, undeterred by any of the impediments which usually incline a traveller from the direct path. Her way was as straight, and nearly as swift, as that of a bird through the air. At length they reached those thickets of natural wood which extended from the skirts of the common towards the glades and brook of Derncleugh, and were there lost to the view.

'This is very extraordinary,' said Lucy after a pause, and turning round to her companion; 'what can he have to do with that old hag?'

'It is very frightful,' answered Julia, 'and almost reminds me of the tales of sorceresses, witches, and evil genii which I have heard in India. They believe there in a fascination of the eye by which those who possess it control the will and dictate the motions of their victims. What can your brother have in common with that fearful woman that he should leave us, obviously against his will, to attend to her commands?'

'At least,' said Lucy, 'we may hold him safe from harm; for she would never have summoned that faithful creature Dinmont, of whose strength, courage, and steadiness Henry said so much, to attend upon an expedition where she projected evil to the person of his friend. And now let us go back to the house till the Colonel returns. Perhaps Bertram may be back first; at any rate, the Colonel will judge what is to be done.'

Leaning, then, upon each other's arm, but yet occasionally stumbling, between fear and the disorder of their nerves, they at length reached the head of the avenue, when they heard the tread of a horse behind. They started, for their ears were awake to every sound, and beheld to their great pleasure young Hazlewood. 'The Colonel will be here immediately,' he said; 'I galloped on before to pay my respects to Miss Bertram, with

the sincerest congratulations upon the joyful event which has taken place in her family. I long to be introduced to Captain Bertram, and to thank him for the well-deserved lesson he gave to my rashness and indiscretion.'

'He has left us just now,' said Lucy, 'and in a manner that has frightened us very much.'

Just at that moment the Colonel's carriage drove up, and, on observing the ladies, stopped, while Mannering and his learned counsel alighted and joined them. They instantly communicated the new cause of alarm.

'Meg Merrilies again!' said the Colonel. 'She certainly is a most mysterious and unaccountable personage; but I think she must have something to impart to Bertram to which she does not mean we should be privy.'

'The devil take the bedlamite old woman,' said the Counsellor; 'will she not let things take their course, prout de lege, but must always be putting in her oar in her own way? Then I fear from the direction they took they are going upon the Ellangowan estate. That rascal Glossin has shown us what ruffians he has at his disposal; I wish honest Liddesdale maybe guard sufficient.'

'If you please,' said Hazlewood, 'I should be most happy to ride in the direction which they have taken. I am so well known in the country that I scarce think any outrage will be offered in my presence, and I shall keep at such a cautious distance as not to appear to watch Meg, or interrupt any communication which she may make.'

'Upon my word,' said Pleydell (aside), 'to be a sprig whom I remember with a whey face and a satchel not so very many years ago, I think young Hazlewood grows a fine fellow. I am more afraid of a new attempt at legal oppression than at open violence, and from that this young man's presence would deter both Glossin and his understrappers.--Hie away then, my boy; peer out--peer out, you 'll find them somewhere about Derncleugh, or very probably in Warroch wood.'

Hazlewood turned his horse. ‘Come back to us to dinner, Hazlewood,’ cried the Colonel. He bowed, spurred his horse, and galloped off.

We now return to Bertram and Dinmont, who continued to follow their mysterious guide through the woods and dingles between the open common and the ruined hamlet of Derncleugh. As she led the way she never looked back upon her followers, unless to chide them for loitering, though the sweat, in spite of the season, poured from their brows. At other times she spoke to herself in such broken expressions as these: ‘It is to rebuild the auld house, it is to lay the corner-stone; and did I not warn him? I tell’d him I was born to do it, if my father’s head had been the stepping-stane, let alane his. I was doomed--still I kept my purpose in the cage and in the stocks; I was banished--I kept it in an unco land; I was scourged, I was branded--my resolution lay deeper than scourge or red iron could reach;--and now the hour is come.’

‘Captain,’ said Dinmont, in a half whisper, ‘I wish she binna uncanny! her words dinna seem to come in God’s name, or like other folks’. Od, they threep in our country that there ARE sic things.’

‘Don’t be afraid, my friend,’ whispered Bertram in return.

‘Fear’d! fient a haet care I,’ said the dauntless farmer; ‘be she witch or deevil, it’s a’ ane to Dandie Dinmont.’

‘Haud your peace, gudeman,’ said Meg, looking sternly over her shoulder; ‘is this a time or place for you to speak, think ye?’

‘But, my good friend,’ said Bertram, ‘as I have no doubt in your good faith or kindness, which I have experienced, you should in return have some confidence in me; I wish to know where you are leading us.’

‘There’s but ae answer to that, Henry Bertram,’ said the sibyl. ‘I swore my tongue should never tell, but I never said my finger should never show. Go on and meet your fortune, or turn back and lose it: that’s a’ I hae to say.’

‘Go on then,’ answered Bertram; ‘I will ask no more questions.’

They descended into the glen about the same place where Meg had formerly parted from Bertram. She paused an instant beneath the tall rock where he had witnessed the burial of a dead body and stamped upon the ground, which, notwithstanding all the care that had been taken, showed vestiges of having been recently moved. ‘Here rests ane,’ she said; ‘he’ll maybe hae neibours sune.’

She then moved up the brook until she came to the ruined hamlet, where, pausing with a look of peculiar and softened interest before one of the gables which was still standing, she said in a tone less abrupt, though as solemn as before, ‘Do you see that blackit and broken end of a sheeling? There my kettle boiled for forty years; there I bore twelve buirdly sons and daughters. Where are they now? where are the leaves that were on that auld ash tree at Martinmas! The west wind has made it bare; and I’m stripped too. Do you see that saugh tree? it’s but a blackened rotten stump now. I’ve sate under it mony a bonnie summer afternoon, when it hung its gay garlands ower the poppling water. I’ve sat there, and,’ elevating her voice, ‘I’ve held you on my knee, Henry Bertram, and sung ye sangs of the auld barons and their bloody wars. It will ne’er be green again, and Meg Merrilies will never sing sangs mair, be they blythe or sad. But ye’ll no forget her, and ye’ll gar big up the auld wa’s for her sake? And let somebody live there that’s ower gude to fear them of another warld. For if ever the dead came back amang the living, I’ll be seen in this glen mony a night after these crazed banes are in the mould.’

The mixture of insanity and wild pathos with which she spoke these last words, with her right arm bare and extended, her left bent and shrouded beneath the dark red drapery of her mantle, might have been a study worthy of our Siddons herself. ‘And now,’ she said, resuming at once the short, stern, and hasty tone which was most ordinary to her, ‘let us to the wark, let us to the wark.’

She then led the way to the promontory on which the Kaim of Derncleugh was situated, produced a large key from her pocket, and unlocked the door. The interior of

this place was in better order than formerly. ‘I have made things decent,’ she said; ‘I may be streekit here or night. There will be few, few at Meg’s lykewake, for mony of our folk will blame what I hae done, and am to do!’

She then pointed to a table, upon which was some cold meat, arranged with more attention to neatness than could have been expected from Meg’s habits. ‘Eat,’ she said--’eat; ye’ll need it this night yet.’

Bertram, in complaisance, eat a morsel or two; and Dinmont, whose appetite was unabated either by wonder, apprehension, or the meal of the morning, made his usual figure as a trencherman. She then offered each a single glass of spirits, which Bertram drank diluted, and his companion plain.

‘Will ye taste naething yoursell, Luckie?’ said Dinmont.

‘I shall not need it,’ replied their mysterious hostess. ‘And now,’ she said, ‘ye maun hae arms: ye maunna gang on dry-handed; but use them not rashly. Take captive, but save life; let the law hae its ain. He maun speak ere he die.’

‘Who is to be taken? who is to speak?’ said Bertram, in astonishment, receiving a pair of pistols which she offered him, and which, upon examining, he found loaded and locked.

‘The flints are gude,’ she said, ‘and the powder dry; I ken this wark weel.’

Then, without answering his questions, she armed Dinmont also with a large pistol, and desired them to choose sticks for themselves out of a parcel of very suspicious-looking bludgeons which she brought from a corner. Bertram took a stout sapling, and Dandie selected a club which might have served Hercules himself. They then left the hut together, and in doing so Bertram took an opportunity to whisper to Dinmont, ‘There’s something inexplicable in all this. But we need not use these arms unless we see necessity and lawful occasion; take care to do as you see me do.’

Dinmont gave a sagacious nod, and they continued to follow, over wet and over dry, through bog and through fallow, the footsteps of their conductress. She guided them to

the wood of Warroch by the same track which the late Ellangowan had used when riding to Derncleugh in quest of his child on the miserable evening of Kennedy's murder.

When Meg Merrilies had attained these groves, through which the wintry sea-wind was now whistling hoarse and shrill, she seemed to pause a moment as if to recollect the way. 'We maun go the precise track,' she said, and continued to go forward, but rather in a zigzag and involved course than according to her former steady and direct line of motion. At length she guided them through the mazes of the wood to a little open glade of about a quarter of an acre, surrounded by trees and bushes, which made a wild and irregular boundary. Even in winter it was a sheltered and snugly sequestered spot; but when arrayed in the verdure of spring, the earth sending forth all its wild flowers, the shrubs spreading their waste of blossom around it, and the weeping birches, which towered over the underwood, drooping their long and leafy fibres to intercept the sun, it must have seemed a place for a youthful poet to study his earliest sonnet, or a pair of lovers to exchange their first mutual avowal of affection. Apparently it now awakened very different recollections. Bertram's brow, when he had looked round the spot, became gloomy and embarrassed. Meg, after uttering to herself, 'This is the very spot!' looked at him with a ghastly side-glance--'D'ye mind it?'

'Yes!' answered Bertram, 'imperfectly I do.'

'Ay!' pursued his guide, 'on this very spot the man fell from his horse. I was behind that bourtree bush at the very moment. Sair, sair he strove, and sair he cried for mercy; but he was in the hands of them that never kenn'd the word! Now will I show you the further track; the last time ye travelled it was in these arms.'

She led them accordingly by a long and winding passage, almost overgrown with brushwood, until, without any very perceptible descent, they suddenly found themselves by the seaside. Meg then walked very fast on between the surf and the rocks, until she came to a remarkable fragment of rock detached from the rest. 'Here,' she said in a low and scarcely audible whisper--'here the corpse was found.'

‘And the cave,’ said Bertram, in the same tone, ‘is close beside it; are you guiding us there?’

‘Yes,’ said the gipsy in a decided tone. ‘Bend up both your hearts; follow me as I creep in; I have placed the fire-wood so as to screen you. Bide behind it for a gliff till I say, “The hour and the man are baith come”; then rin in on him, take his arms, and bind him till the blood burst frae his finger nails.’

‘I will, by my soul,’ said Henry, ‘if he is the man I suppose--Jansen?’

‘Ay, Jansen, Hatteraick, and twenty mair names are his.’

‘Dinmont, you must stand by me now,’ said Bertram, ‘for this fellow is a devil.’

‘Ye needna doubt that,’ said the stout yeoman; ‘but I wish I could mind a bit prayer or I creep after the witch into that hole that she’s opening. It wad be a sair thing to leave the blessed sun and the free air, and gang and be killed like a tod that’s run to earth, in a dungeon like that. But, my sooth, they will be hard-bitten terriers will worry Dandie; so, as I said, deil hae me if I baulk you.’ This was uttered in the lowest tone of voice possible. The entrance was now open. Meg crept in upon her hands and knees, Bertram followed, and Dinmont, after giving a rueful glance toward the daylight, whose blessings he was abandoning, brought up the rear.

zaid n. adwan

CHAPTER XXV

Die, prophet! in thy speech;
For this, among the rest, was I ordained.

Henry VI. Part III.

The progress of the Borderer, who, as we have said, was the last of the party, was fearfully arrested by a hand, which caught hold of his leg as he dragged his long limbs after him in silence and perturbation through the low and narrow entrance of the subterranean passage. The steel heart of the bold yeoman had well-nigh given way, and he suppressed with difficulty a shout, which, in the defenceless posture and situation which they then occupied, might have cost all their lives. He contented himself, however, with extricating his foot from the grasp of this unexpected follower. 'Be still,' said a voice behind him, releasing him; 'I am a friend--Charles Hazlewood.'

These words were uttered in a very low voice, but they produced sound enough to startle Meg Merrilies, who led the van, and who, having already gained the place where the cavern expanded, had risen upon her feet. She began, as if to confound any listening ear, to growl, to mutter, and to sing aloud, and at the same time to make a bustle among some brushwood which was now heaped in the cave.

'Here, beldam, deyvil's kind,' growled the harsh voice of Dirk Hatteraick from the inside of his den, 'what makest thou there?'

'Laying the roughies to keep the cauld wind frae you, ye desperate do-nae-good. Ye're e'en ower weel off, and wotsna; it will be otherwise soon.'

'Have you brought me the brandy, and any news of my people?' said Dirk Hatteraick.

'There's the flask for ye. Your people--dispersed, broken, gone, or cut to ribbands by the redcoats.'

'Der deyvil! this coast is fatal to me.'

'Ye may hae mair reason to say sae.'

While this dialogue went forward, Bertram and Dinmont had both gained the interior of the cave and assumed an erect position. The only light which illuminated its rugged and sable precincts was a quantity of wood burnt to charcoal in an iron grate, such as

they use in spearing salmon by night. On these red embers Hatteraick from time to time threw a handful of twigs or splintered wood; but these, even when they blazed up, afforded a light much disproportioned to the extent of the cavern; and, as its principal inhabitant lay upon the side of the grate most remote from the entrance, it was not easy for him to discover distinctly objects which lay in that direction. The intruders, therefore, whose number was now augmented unexpectedly to three, stood behind the loosely-piled branches with little risk of discovery. Dinmont had the sense to keep back Hazlewood with one hand till he whispered to Bertram, 'A friend--young Hazlewood.'

It was no time for following up the introduction, and they all stood as still as the rocks around them, obscured behind the pile of brushwood, which had been probably placed there to break the cold wind from the sea, without totally intercepting the supply of air. The branches were laid so loosely above each other that, looking through them towards the light of the fire-grate, they could easily discover what passed in its vicinity, although a much stronger degree of illumination than it afforded would not have enabled the persons placed near the bottom of the cave to have descried them in the position which they occupied.

The scene, independent of the peculiar moral interest and personal danger which attended it, had, from the effect of the light and shade on the uncommon objects which it exhibited, an appearance emphatically dismal. The light in the fire-grate was the dark-red glare of charcoal in a state of ignition, relieved from time to time by a transient flame of a more vivid or duskier light, as the fuel with which Dirk Hatteraick fed his fire was better or worse fitted for his purpose. Now a dark cloud of stifling smoke rose up to the roof of the cavern, and then lighted into a reluctant and sullen blaze, which flashed wavering up the pillar of smoke, and was suddenly rendered brighter and more lively by some drier fuel, or perhaps some splintered fir-timber, which at once converted the smoke into flame. By such fitful irradiation they could see, more or less distinctly, the form of Hatteraick, whose savage and rugged cast of features, now rendered yet

more ferocious by the circumstances of his situation and the deep gloom of his mind, assorted well with the rugged and broken vault, which rose in a rude arch over and around him. The form of Meg Merrilies, which stalked about him, sometimes in the light, sometimes partially obscured in the smoke or darkness, contrasted strongly with the sitting figure of Hatteraick as he bent over the flame, and from his stationary posture was constantly visible to the spectator, while that of the female flitted around, appearing or disappearing like a spectre.

Bertram felt his blood boil at the sight of Hatteraick. He remembered him well under the name of Jansen, which the smuggler had adopted after the death of Kennedy; and he remembered also that this Jansen, and his mate Brown, the same who was shot at Woodbourne, had been the brutal tyrants of his infancy. Bertram knew farther, from piecing his own imperfect recollections with the narratives of Mannering and Pleydell, that this man was the prime agent in the act of violence which tore him from his family and country, and had exposed him to so many distresses and dangers. A thousand exasperating reflections rose within his bosom; and he could hardly refrain from rushing upon Hatteraick and blowing his brains out.

At the same time this would have been no safe adventure. The flame, as it rose and fell, while it displayed the strong, muscular, and broad-chested frame of the ruffian, glanced also upon two brace of pistols in his belt, and upon the hilt of his cutlass: it was not to be doubted that his desperation was commensurate with his personal strength and means of resistance. Both, indeed, were inadequate to encounter the combined power of two such men as Bertram himself and his friend Dinmont, without reckoning their unexpected assistant Hazlewood, who was unarmed, and of a slighter make; but Bertram felt, on a moment's reflection, that there would be neither sense nor valour in anticipating the hangman's office, and he considered the importance of making Hatteraick prisoner alive. He therefore repressed his indignation, and awaited what should pass between the ruffian and his gipsy guide.

‘And how are ye now?’ said the harsh and discordant tones of his female attendant.’ Said I not, it would come upon you--ay, and in this very cave, where ye harboured after the deed?’

‘Wetter and sturm, ye hag!’ replied Hatteraick, ‘keep your deyvil’s matins till they’re wanted. Have you seen Glossin?’

‘No,’ replied Meg Merrilies; ‘you’ve missed your blow, ye blood-spiller! and ye have nothing to expect from the tempter.’

‘Hagel!’ exclaimed the ruffian, ‘if I had him but by the throat! And what am I to do then?’

‘Do?’ answered the gipsy; ‘die like a man, or be hanged like a dog!’

‘Hanged, ye hag of Satan! The hemp’s not sown that shall hang me.’

‘It’s sown, and it’s grown, and it’s heckled, and it’s twisted. Did I not tell ye, when ye wad take away the boy Harry Bertram, in spite of my prayers,--did I not say he would come back when he had dree’d his weird in foreign land till his twenty-first year? Did I not say the auld fire would burn down to a spark, but wad kindle again?’

‘Well, mother, you did say so,’ said Hatteraick, in a tone that had something of despair in its accents; ‘and, donner and blitzen! I believe you spoke the truth. That younker of Ellangowan has been a rock ahead to me all my life! And now, with Glossin’s cursed contrivance, my crew have been cut off, my boats destroyed, and I daresay the lugger’s taken; there were not men enough left on board to work her, far less to fight her--a dredge-boat might have taken her. And what will the owners say? Hagel and sturm! I shall never dare go back again to Flushing.’

‘You’ll never need,’ said the gipsy.

‘What are you doing there,’ said her companion; ‘and what makes you say that?’

During this dialogue Meg was heaping some flax loosely together. Before answer to this question she dropped a firebrand upon the flax, which had been previously steeped

in some spirituous liquor, for it instantly caught fire and rose in a vivid pyramid of the most brilliant light up to the very top of the vault. As it ascended Meg answered the ruffian's question in a firm and steady voice: 'BECAUSE THE HOUR'S COME, AND THE MAN.'

ENLARGE

At the appointed signal Bertram and Dinmont sprung over the brushwood and rushed upon Hatteraick. Hazlewood, unacquainted with their plan of assault, was a moment later. The ruffian, who instantly saw he was betrayed, turned his first vengeance on Meg Merrilies, at whom he discharged a pistol. She fell with a piercing and dreadful cry between the shriek of pain and the sound of laughter when at its highest and most suffocating height. ‘I kenn’d it would be this way,’ she said.

Bertram, in his haste, slipped his foot upon the uneven rock which floored the cave--a fortunate stumble, for Hatteraick’s second bullet whistled over him with so true and steady an aim that, had he been standing upright, it must have lodged in his brain. Ere the smuggler could draw another pistol, Dinmont closed with him, and endeavoured by main force to pinion down his arms. Such, however, was the wretch’s personal strength, joined to the efforts of his despair, that, in spite of the gigantic force with which the Borderer grappled him, he dragged Dinmont through the blazing flax, and had almost succeeded in drawing a third pistol, which might have proved fatal to the honest farmer, had not Bertram, as well as Hazlewood, come to his assistance, when, by main force, and no ordinary exertion of it, they threw Hatteraick on the ground, disarmed him, and bound him. This scuffle, though it takes up some time in the narrative, passed in less than a single minute. When he was fairly mastered, after one or two desperate and almost convulsionary struggles, the ruffian lay perfectly still and silent. ‘He’s gaun to die game ony how,’ said Dinmont; ‘weel, I like him na the waur for that.’

This observation honest Dandie made while he was shaking the blazing flax from his rough coat and shaggy black hair, some of which had been singed in the scuffle. ‘He is quiet now,’ said Bertram; ‘stay by him and do not permit him to stir till I see whether

zain.adwan

the poor woman be alive or dead.' With Hazlewood's assistance he raised Meg Merrilies.

'I kenn'd it would be this way,' she muttered, 'and it's e'en this way that it should be.'

The ball had penetrated the breast below the throat. It did not bleed much externally; but Bertram, accustomed to see gunshot wounds, thought it the more alarming. 'Good God! what shall we do for this poor woman?' said he to Hazlewood, the circumstances superseding the necessity of previous explanation or introduction to each other.

'My horse stands tied above in the wood,' said Hazlewood. 'I have been watching you these two hours. I will ride off for some assistants that may be trusted. Meanwhile, you had better defend the mouth of the cavern against every one until I return.' He hastened away. Bertram, after binding Meg Merrilies's wound as well as he could, took station near the mouth of the cave with a cocked pistol in his hand; Dinmont continued to watch Hatteraick, keeping a grasp like that of Hercules on his breast. There was a dead silence in the cavern, only interrupted by the low and suppressed moaning of the wounded female and by the hard breathing of the prisoner.

zaid n. adwan

CHAPTER XXVI

For though, seduced and led astray,
Thoust travell'd far and wander'd long,
Thy God hath seen thee all the way,
And all the turns that led thee wrong

The Hall of Justice.

After the space of about three-quarters of an hour, which the uncertainty and danger of their situation made seem almost thrice as long, the voice of young Hazlewood was heard without. ‘Here I am,’ he cried, ‘with a sufficient party.’

‘Come in then,’ answered Bertram, not a little pleased to find his guard relieved. Hazlewood then entered, followed by two or three countrymen, one of whom acted as a peace-officer. They lifted Hatteraick up and carried him in their arms as far as the entrance of the vault was high enough to permit them; then laid him on his back and dragged him along as well as they could, for no persuasion would induce him to assist the transportation by any exertion of his own. He lay as silent and inactive in their hands as a dead corpse, incapable of opposing, but in no way aiding, their operations. When he was dragged into daylight and placed erect upon his feet among three or four assistants who had remained without the cave, he seemed stupefied and dazzled by the sudden change from the darkness of his cavern. While others were superintending the removal of Meg Merrilies, those who remained with Hatteraick attempted to make him sit down upon a fragment of rock which lay close upon the high-water mark. A strong shuddering convulsed his iron frame for an instant as he resisted their purpose. ‘Not there! Hagel! you would not make me sit THERE?’

These were the only words he spoke; but their import, and the deep tone of horror in which they were uttered, served to show what was passing in his mind.

When Meg Merrilies had also been removed from the cavern, with all the care for her safety that circumstances admitted, they consulted where she should be carried. Hazlewood had sent for a surgeon, and proposed that she should be lifted in the meantime to the nearest cottage. But the patient exclaimed with great earnestness, ‘Na, na, na! to the Kaim o’ Derncleugh--the Kaim o’ Derncleugh; the spirit will not free itself o’ the flesh but there.’

‘You must indulge her, I believe,’ said Bertram; ‘her troubled imagination will otherwise aggravate the fever of the wound.’

They bore her accordingly to the vault. On the way her mind seemed to run more upon the scene which had just passed than on her own approaching death. ‘There were three of them set upon him: I brought the twasome, but wha was the third? It would be HIMSELL, returned to work his ain vengeance!’

It was evident that the unexpected appearance of Hazlewood, whose person the outrage of Hatteraick left her no time to recognise, had produced a strong effect on her imagination. She often recurred to it. Hazlewood accounted for his unexpected arrival to Bertram by saying that he had kept them in view for some time by the direction of Mannering; that, observing them disappear into the cave, he had crept after them, meaning to announce himself and his errand, when his hand in the darkness encountering the leg of Dinmont had nearly produced a catastrophe, which, indeed, nothing but the presence of mind and fortitude of the bold yeoman could have averted.

When the gipsy arrived at the hut she produced the key; and when they entered, and were about to deposit her upon the bed, she said, in an anxious tone, ‘Na, na! not that way--the feet to the east’; and appeared gratified when they reversed her posture accordingly, and placed her in that appropriate to a dead body.

‘Is there no clergyman near,’ said Bertram, ‘to assist this unhappy woman’s devotions?’

A gentleman, the minister of the parish, who had been Charles Hazlewood’s tutor, had, with many others, caught the alarm that the murderer of Kennedy was taken on the spot where the deed had been done so many years before, and that a woman was mortally wounded. From curiosity, or rather from the feeling that his duty called him to scenes of distress, this gentleman had come to the Kaim of Derncleugh, and now presented himself. The surgeon arrived at the same time, and was about to probe the wound; but Meg resisted the assistance of either. ‘It’s no what man can do that will heal

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my body or save my spirit. Let me speak what I have to say, and then ye may work your will; I'se be nae hindrance. But where's Henry Bertram?' The assistants, to whom this name had been long a stranger, gazed upon each other. 'Yes!' she said, in a stronger and harsher tone, 'I said HENRY BERTRAM OF ELLANGOWAN. Stand from the light and let me see him.'

All eyes were turned towards Bertram, who approached the wretched couch. The wounded woman took hold of his hand. 'Look at him,' she said, 'all that ever saw his father or his grandfather, and bear witness if he is not their living image?' A murmur went through the crowd; the resemblance was too striking to be denied. 'And now hear me; and let that man,' pointing to Hatteraick, who was seated with his keepers on a sea-chest at some distance--'let him deny what I say if he can. That is Henry Bertram, son to Godfrey Bertram, umquhile of Ellangowan; that young man is the very lad-bairn that Dirk Hatteraick carried off from Warroch wood the day that he murdered the gauger. I was there like a wandering spirit, for I longed to see that wood or we left the country. I saved the bairn's life, and sair, sair I prigged and prayed they would leave him wi' me. But they bore him away, and he's been lang ower the sea, and now he's come for his ain, and what should withstand him? I swore to keep the secret till he was ane-an'-twenty; I kenn'd he behoved to dree his weird till that day cam. I keepit that oath which I took to them; but I made another vow to mysell, that if I lived to see the day of his return I would set him in his father's seat, if every step was on a dead man. I have keepit that oath too. I will be ae step mysell, he (pointing to Hatteraick) will soon be another, and there will be ane mair yet.'

The clergyman, now interposing, remarked it was a pity this deposition was not regularly taken and written down, and the surgeon urged the necessity of examining the wound, previously to exhausting her by questions. When she saw them removing Hatteraick, in order to clear the room and leave the surgeon to his operations, she called out aloud, raising herself at the same time upon the couch, 'Dirk Hatteraick, you and I

will never meet again until we are before the judgment-seat; will ye own to what I have said, or will you dare deny it?' He turned his hardened brow upon her, with a look of dumb and inflexible defiance. 'Dirk Hatteraick, dare ye deny, with my blood upon your hands, one word of what my dying breath is uttering?' He looked at her with the same expression of hardihood and dogged stubbornness, and moved his lips, but uttered no sound. 'Then fareweel!' she said, 'and God forgive you! your hand has sealed my evidence. When I was in life I was the mad randy gipsy, that had been scourged and banished and branded; that had begged from door to door, and been hounded like a stray tyke from parish to parish; wha would hae minded HER tale? But now I am a dying woman, and my words will not fall to the ground, any more than the earth will cover my blood!'

She here paused, and all left the hut except the surgeon and two or three women. After a very short examination he shook his head and resigned his post by the dying woman's side to the clergyman.

A chaise returning empty to Kippletringan had been stopped on the highroad by a constable, who foresaw it would be necessary to convey Hatteraick to jail. The driver, understanding what was going on at Derncleugh, left his horses to the care of a blackguard boy, confiding, it is to be supposed, rather in the years and discretion of the cattle than in those of their keeper, and set off full speed to see, as he expressed himself, 'whaten a sort o' fun was gaun on.' He arrived just as the group of tenants and peasants, whose numbers increased every moment, satiated with gazing upon the rugged features of Hatteraick, had turned their attention towards Bertram. Almost all of them, especially the aged men who had seen Ellangowan in his better days, felt and acknowledged the justice of Meg Merrilies's appeal. But the Scotch are a cautious people: they remembered there was another in possession of the estate, and they as yet only expressed their feelings in low whispers to each other. Our friend Jock Jabos, the postilion, forced his way into the middle of the circle; but no sooner cast his eyes upon

Bertram than he started back in amazement, with a solemn exclamation, ‘As sure as there’s breath in man, it’s auld Ellangowan arisen from the dead!’

This public declaration of an unprejudiced witness was just the spark wanted to give fire to the popular feeling, which burst forth in three distinct shouts: ‘Bertram for ever!’ ‘Long life to the heir of Ellangowan!’ ‘God send him his ain, and to live among us as his forebears did of yore!’

‘I hae been seventy years on the land,’ said one person.

‘I and mine hae been seventy and seventy to that,’ said another; ‘I have a right to ken the glance of a Bertram.’

‘I and mine hae been three hundred years here,’ said another old man, ‘and I sail sell my last cow, but I’ll see the young Laird placed in his right.’

The women, ever delighted with the marvellous, and not less so when a handsome young man is the subject of the tale, added their shrill acclamations to the general all-hail. ‘Blessings on him; he’s the very picture o’ his father! The Bertrams were aye the wale o’ the country side!’

‘Eh! that his puir mother, that died in grief and in doubt about him, had but lived to see this day!’ exclaimed some female voices.

‘But we’ll help him to his ain, kimmers,’ cried others; ‘and before Glossin sail keep the Place of Ellangowan we’ll howk him out o’t wi’ our nails!’

Others crowded around Dinmont, who was nothing both to tell what he knew of his friend, and to boast the honour which he had in contributing to the discovery. As he was known to several of the principal farmers present, his testimony afforded an additional motive to the general enthusiasm. In short, it was one of those moments of intense feeling when the frost of the Scottish people melts like a snow-wreath, and the dissolving torrent carries dam and dyke before it.

The sudden shouts interrupted the devotions of the clergyman; and Meg, who was in one of those dozing fits of stupefaction that precede the close of existence, suddenly

started--'Dinna ye hear? dinna ye hear? He's owned! he's owned! I lived but for this. I am a sinfu' woman; but if my curse brought it down, my blessing has taen it off! And now I wad hae liked to hae said mair. But it canna be. Stay'--she continued, stretching her head towards the gleam of light that shot through the narrow slit which served for a window--'is he not there? Stand out o' the light, and let me look upon him ance mair. But the darkness is in my ain een,' she said, sinking back, after an earnest gaze upon vacuity; 'it's a' ended now,

Pass breath,
Come death!'

And, sinking back upon her couch of straw, she expired without a groan. The clergyman and the surgeon carefully noted down all that she had said, now deeply regretting they had not examined her more minutely, but both remaining morally convinced of the truth of her disclosure.

Hazlewood was the first to compliment Bertram upon the near prospect of his being restored to his name and rank in society. The people around, who now learned from Jabos that Bertram was the person who had wounded him, were struck with his generosity, and added his name to Bertram's in their exulting acclamations.

Some, however, demanded of the postilion how he had not recognised Bertram when he saw him some time before at Kippletringan. To which he gave the very natural answer--'Hout, what was I thinking about Ellangowan then? It was the cry that was rising e'en now that the young Laird was found, that put me on finding out the likeness. There was nae missing it ance ane was set to look for't.'

The obduracy of Hatteraick during the latter part of this scene was in some slight degree shaken. He was observed to twinkle with his eyelids; to attempt to raise his bound hands for the purpose of pulling his hat over his brow; to look angrily and impatiently to the road, as if anxious for the vehicle which was to remove him from the spot. At length Mr. Hazlewood, apprehensive that the popular ferment might take a direction towards the prisoner, directed he should be taken to the post-chaise, and so

removed to the town of Kippletringan, to be at Mr. Mac-Morlan's disposal; at the same time he sent an express to warn that gentleman of what had happened. 'And now,' he said to Bertram, 'I should be happy if you would accompany me to Hazlewood House; but as that might not be so agreeable just now as I trust it will be in a day or two, you must allow me to return with you to Woodbourne. But you are on foot.'--'O, if the young Laird would take my horse!'--'Or mine'--'Or mine,' said half-a-dozen voices.--'Or mine; he can trot ten mile an hour without whip or spur, and he's the young Laird's frae this moment, if he likes to take him for a herezeld, [Footnote: See Note 8.] as they ca'd it lang syne.' Bertram readily accepted the horse as a loan, and poured forth his thanks to the assembled crowd for their good wishes, which they repaid with shouts and vows of attachment.

While the happy owner was directing one lad to 'gae doun for the new saddle'; another,' just to rin the beast ower wi' a dry wisp o' strae'; a third, 'to hie doun and borrow Dan Dunkieson's plated stirrups,' and expressing his regret 'that there was nae time to gie the nag a feed, that the young Laird might ken his mettle,' Bertram, taking the clergyman by the arm, walked into the vault and shut the door immediately after them. He gazed in silence for some minutes upon the body of Meg Merrilies, as it lay before him, with the features sharpened by death, yet still retaining the stern and energetic character which had maintained in life her superiority as the wild chieftainess of the lawless people amongst whom she was born. The young soldier dried the tears which involuntarily rose on viewing this wreck of one who might be said to have died a victim to her fidelity to his person and family. He then took the clergyman's hand and asked solemnly if she appeared able to give that attention to his devotions which befitted a departing person.

'My dear sir,' said the good minister, 'I trust this poor woman had remaining sense to feel and join in the import of my prayers. But let us humbly hope we are judged of by our opportunities of religious and moral instruction. In some degree she might be

considered as an uninstructed heathen, even in the bosom of a Christian country; and let us remember that the errors and vices of an ignorant life were balanced by instances of disinterested attachment, amounting almost to heroism. To HIM who can alone weigh our crimes and errors against our efforts towards virtue we consign her with awe, but not without hope.'

'May I request,' said Bertram, 'that you will see every decent solemnity attended to in behalf of this poor woman? I have some property belonging to her in my hands; at all events I will be answerable for the expense. You will hear of me at Woodbourne.'

Dinmont, who had been furnished with a horse by one of his acquaintance, now loudly called out that all was ready for their return; and Bertram and Hazlewood, after a strict exhortation to the crowd, which was now increased to several hundreds, to preserve good order in their rejoicing, as the least ungoverned zeal might be turned to the disadvantage of the young Laird, as they termed him, took their leave amid the shouts of the multitude.

As they rode past the ruined cottages at Derncleugh, Dinmont said, 'I'm sure when ye come to your ain, Captain, ye'll no forget to bigg a bit cot-house there? Deil be in me but I wad do't mysell, an it werena in better hands. I wadna like to live in't, though, after what she said. Od, I wad put in auld Elspeth, the bedral's widow; the like o' them's used wi' graves and ghaists and thae things.'

A short but brisk ride brought them to Woodbourne. The news of their exploit had already flown far and wide, and the whole inhabitants of the vicinity met them on the lawn with shouts of congratulation. 'That you have seen me alive,' said Bertram to Lucy, who first ran up to him, though Julia's eyes even anticipated hers, 'you must thank these kind friends.'

With a blush expressing at once pleasure, gratitude, and bashfulness, Lucy curtsied to Hazlewood, but to Dinmont she frankly extended her hand. The honest farmer, in the extravagance of his joy, carried his freedom farther than the hint warranted, for he

imprinted his thanks on the lady's lips, and was instantly shocked at the rudeness of his own conduct. 'Lord sake, madam, I ask your pardon,' he said. 'I forgot but ye had been a bairn o'my ain; the Captain's sae namely, he gars ane forget himsell.'

Old Pleydell now advanced. 'Nay, if fees like these are going,' he said--

'Stop, stop, Mr. Pleydell,' said Julia, 'you had your fees beforehand; remember last night.'

'Why, I do confess a retainer,' said the Barrister; 'but if I don't deserve double fees from both Miss Bertram and you when I conclude my examination of Dirk Hatteraick to-morrow--Gad, I will so supple him! You shall see, Colonel; and you, my saucy misses, though you may not see, shall hear.'

'Ay, that's if we choose to listen, Counsellor,' replied Julia.

'And you think,' said Pleydell, 'it's two to one you won't choose that? But you have curiosity that teaches you the use of your ears now and then.'

'I declare, Counsellor,' answered the lively damsel, 'that such saucy bachelors as you would teach us the use of our fingers now and then.'

'Reserve them for the harpsichord, my love,' said the Counsellor. 'Better for all parties.'

While this idle chat ran on, Colonel Mannering introduced to Bertram a plain good-looking man, in a grey coat and waistcoat, buckskin breeches, and boots. 'This, my dear sir, is Mr. Mac-Morlan.'

'To whom,' said Bertram, embracing him cordially, 'my sister was indebted for a home, when deserted by all her natural friends and relations.'

The Dominie then pressed forward, grinned, chuckled, made a diabolical sound in attempting to whistle, and finally, unable to stifle his emotions, ran away to empty the feelings of his heart at his eyes.

We shall not attempt to describe the expansion of heart and glee of this happy evening.

CHAPTER XXVII

How like a hateful ape,
Detected grinning 'midst his pilfer'd hoard,
A cunning man appears, whose secret frauds
Are open'd to the day!

Count Basil

There was a great movement at Woodbourne early on the following morning to attend the examination at Kippletringan. Mr. Pleydell, from the investigation which he had formerly bestowed on the dark affair of Kennedy's death, as well as from the general deference due to his professional abilities, was requested by Mr. Mac-Morlan and Sir Robert Hazlewood, and another justice of peace who attended, to take the situation of chairman and the lead in the examination. Colonel Mannering was invited to sit down with them. The examination, being previous to trial, was private in other respects.

The Counsellor resumed and reinterrogated former evidence. He then examined the clergyman and surgeon respecting the dying declaration of Meg Merrilies. They stated that she distinctly, positively, and repeatedly declared herself an eye-witness of Kennedy's death by the hands of Hatteraick and two or three of his crew; that her presence was accidental; that she believed their resentment at meeting him, when they

were in the act of losing their vessel through the means of his information, led to the commission of the crime; that she said there was one witness of the murder, but who refused to participate in it, still alive--her nephew, Gabriel Faa; and she had hinted at another person who was an accessory after, not before, the fact; but her strength there failed her. They did not forget to mention her declaration that she had saved the child, and that he was torn from her by the smugglers for the purpose of carrying him to Holland. All these particulars were carefully reduced to writing.

Dirk Hatteraick was then brought in, heavily ironed; for he had been strictly secured and guarded, owing to his former escape. He was asked his name; he made no answer. His profession; he was silent. Several other questions were put, to none of which he returned any reply. Pleydell wiped the glasses of his spectacles and considered the prisoner very attentively. ‘A very truculent-looking fellow,’ he whispered to Mannering; ‘but, as Dogberry says, I’ll go cunningly to work with him. Here, call in Soles--Soles the shoemaker. Soles, do you remember measuring some footsteps imprinted on the mud at the wood of Warroch on--November 17--, by my orders?’ Soles remembered the circumstance perfectly. ‘Look at that paper; is that your note of the measurement?’ Soles verified the memorandum. ‘Now, there stands a pair of shoes on that table; measure them, and see if they correspond with any of the marks you have noted there.’ The shoemaker obeyed, and declared ‘that they answered exactly to the largest of the footprints.’

‘We shall prove,’ said the Counsellor, aside to Mannering, ‘that these shoes, which were found in the ruins at Derncleugh, belonged to Brown, the fellow whom you shot on the lawn at Woodbourne. Now, Soles, measure that prisoner’s feet very accurately.’

Mannering observed Hatteraick strictly, and could notice a visible tremor. ‘Do these measurements correspond with any of the footprints?’

The man looked at the note, then at his foot-rule and measure, then verified his former measurement by a second. ‘They correspond,’ he said, ‘within a hair-breadth to a foot-mark broader and shorter than the former.’

Hatteraick’s genius here deserted him. ‘Der deyvil!’ he broke out, ‘how could there be a footmark on the ground, when it was a frost as hard as the heart of a Memel log?’

‘In the evening, I grant you, Captain Hatteraick,’ said Pleydell, ‘but not in the forenoon. Will you favour me with information where you were upon the day you remember so exactly?’

Hatteraick saw his blunder, and again screwed up his hard features for obstinate silence. ‘Put down his observation, however,’ said Pleydell to the clerk.

At this moment the door opened, and, much to the surprise of most present, Mr. Gilbert Glossin made his appearance. That worthy gentleman had, by dint of watching and eavesdropping, ascertained that he was not mentioned by name in Meg Merrilies’s dying declaration--a circumstance certainly not owing to any favourable disposition towards him, but to the delay of taking her regular examination, and to the rapid approach of death. He therefore supposed himself safe from all evidence but such as might arise from Hatteraick’s confession; to prevent which he resolved to push a bold face and join his brethren of the bench during his examination. ‘I shall be able,’ he thought, ‘to make the rascal sensible his safety lies in keeping his own counsel and mine; and my presence, besides, will be a proof of confidence and innocence. If I must lose the estate, I must; but I trust better things.’

He entered with a profound salutation to Sir Robert Hazlewood. Sir Robert, who had rather begun to suspect that his plebeian neighbour had made a cat’s paw of him, inclined his head stiffly, took snuff, and looked another way.

‘Mr. Corsand,’ said Glossin to the other yokefellow of justice, ‘your most humble servant.’

‘Your humble servant, Mr. Glossin,’ answered Mr. Corsand drily, composing his countenance regis ad exemplar, that is to say, after the fashion of the Baronet.

‘Mac-Morlan, my worthy friend,’ continued Glossin, ‘how d’ ye do; always on your duty?’

‘Umph,’ said honest Mac-Morlan, with little respect either to the compliment or salutation.

‘Colonel Mannering (a low bow slightly returned), and Mr. Pleydell (another low bow), I dared not have hoped for your assistance to poor country gentlemen at this period of the session.’

Pleydell took snuff, and eyed him with a glance equally shrewd and sarcastic. ‘I’ll teach him,’ he said aside to Mannering, ‘the value of the old admonition, Ne accesseris in consilium antequam voceris.’

‘But perhaps I intrude, gentlemen?’ said Glossin, who could not fail to observe the coldness of his reception. ‘Is this an open meeting?’

‘For my part,’ said Mr. Pleydell, ‘so far from considering your attendance as an intrusion, Mr. Glossin, I was never so pleased in my life to meet with you; especially as I think we should, at any rate, have had occasion to request the favour of your company in the course of the day.’

‘Well, then, gentlemen,’ said Glossin, drawing his chair to the table, and beginning to bustle about among the papers, ‘where are we? how far have we got? where are the declarations?’

‘Clerk, give me all these papers,’ said Mr. Pleydell. ‘I have an odd way of arranging my documents, Mr. Glossin, another person touching them puts me out; but I shall have occasion for your assistance by and by.’

Glossin, thus reduced to inactivity, stole one glance at Dirk Hatteraick, but could read nothing in his dark scowl save malignity and hatred to all around. ‘But, gentlemen,’

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said Glossin, ‘is it quite right to keep this poor man so heavily ironed when he is taken up merely for examination?’

This was hoisting a kind of friendly signal to the prisoner. ‘He has escaped once before,’ said Mac-Morlan drily, and Glossin was silenced.

Bertram was now introduced, and, to Glossin’s confusion, was greeted in the most friendly manner by all present, even by Sir Robert Hazlewood himself. He told his recollections of his infancy with that candour and caution of expression which afforded the best warrant for his good faith. ‘This seems to be rather a civil than a criminal question,’ said Glossin, rising; ‘and as you cannot be ignorant, gentlemen, of the effect which this young person’s pretended parentage may have on my patrimonial interest, I would rather beg leave to retire.’

‘No, my good sir,’ said Mr. Pleydell, ‘we can by no means spare you. But why do you call this young man’s claims pretended? I don’t mean to fish for your defences against them, if you have any, but--’

‘Mr. Pleydell,’ replied Glossin, ‘I am always disposed to act above-board, and I think I can explain the matter at once. This young fellow, whom I take to be a natural son of the late Ellangowan, has gone about the country for some weeks under different names, caballing with a wretched old mad-woman, who, I understand, was shot in a late scuffle, and with other tinkers, gipsies, and persons of that description, and a great brute farmer from Liddesdale, stirring up the tenants against their landlords, which, as Sir Robert Hazlewood of Hazlewood knows--’

‘Not to interrupt you, Mr. Glossin,’ said Pleydell, ‘I ask who you say this young man is?’

‘Why, I say,’ replied Glossin, ‘and I believe that gentleman (looking at Hatteraick) knows, that the young man is a natural son of the late Ellangowan, by a girl called Janet Lightoheel, who was afterwards married to Hewit the shipwright, that lived in the

neighbourhood of Annan. His name is Godfrey Bertram Hewit, by which name he was entered on board the Royal Caroline excise yacht.'

'Ay?' said Pleydell, 'that is a very likely story! But, not to pause upon some difference of eyes, complexion, and so forth--be pleased to step forward, sir.' (A young seafaring man came forward.) 'Here,' proceeded the Counsellor, 'is the real Simon Pure; here's Godfrey Bertram Hewit, arrived last night from Antigua via Liverpool, mate of a West-Indian, and in a fair way of doing well in the world, although he came somewhat irregularly into it.'

While some conversation passed between the other justices and this young man, Pleydell lifted from among the papers on the table Hatteraick's old pocket-book. A peculiar glance of the smuggler's eye induced the shrewd lawyer to think there was something here of interest. He therefore continued the examination of the papers, laying the book on the table, but instantly perceived that the prisoner's interest in the research had cooled. 'It must be in the book still, whatever it is,' thought Pleydell; and again applied himself to the pocket-book, until he discovered, on a narrow scrutiny, a slit between the pasteboard and leather, out of which he drew three small slips of paper. Pleydell now, turning to Glossin, requested the favour that he would tell them if he had assisted at the search for the body of Kennedy and the child of his patron on the day when they disappeared.

'I did not--that is, I did,' answered the conscience-struck Glossin.

'It is remarkable though,' said the Advocate, 'that, connected as you were with the Ellangowan family, I don't recollect your being examined, or even appearing before me, while that investigation was proceeding?'

'I was called to London,' answered Glossin, 'on most important business the morning after that sad affair.'

'Clerk,' said Pleydell, 'minute down that reply. I presume the business, Mr. Glossin, was to negotiate these three bills, drawn by you on Messrs. Vanbeest and Vanbruggen,

and accepted by one Dirk Hatteraick in their name on the very day of the murder. I congratulate you on their being regularly retired, as I perceive they have been. I think the chances were against it.' Glossin's countenance fell. 'This piece of real evidence,' continued Mr. Pleydell, 'makes good the account given of your conduct on this occasion by a man called Gabriel Faa, whom we have now in custody, and who witnessed the whole transaction between you and that worthy prisoner. Have you any explanation to give?'

'Mr. Pleydell,' said Glossin, with great composure, 'I presume, if you were my counsel, you would not advise me to answer upon the spur of the moment to a charge which the basest of mankind seem ready to establish by perjury.'

'My advice,' said the Counsellor, 'would be regulated by my opinion of your innocence or guilt. In your case, I believe you take the wisest course; but you are aware you must stand committed?'

'Committed? for what, sir?' replied Glossin. 'Upon a charge of murder?'

'No; only as art and part of kidnapping the child.'

'That is a bailable offence.'

'Pardon me,' said Pleydell, 'it is plagium, and plagium is felony.'

'Forgive me, Mr. Pleydell, there is only one case upon record, Torrence and Waldie. They were, you remember, resurrection-women, who had promised to procure a child's body for some young surgeons. Being upon honour to their employers, rather than disappoint the evening lecture of the students, they stole a live child, murdered it, and sold the body for three shillings and sixpence. They were hanged, but for the murder, not for the plagium [Footnote: This is, in its circumstances and issue, actually a case tried and reported.]--Your civil law has carried you a little too far.'

'Well, sir, but in the meantime Mr. Mac-Morlan must commit you to the county jail, in case this young man repeats the same story. Officers, remove Mr. Glossin and Hatteraick, and guard them in different apartments.'

Gabriel, the gipsy, was then introduced, and gave a distinct account of his deserting from Captain Pritchard's vessel and joining the smugglers in the action, detailed how Dirk Hatteraick set fire to his ship when he found her disabled, and under cover of the smoke escaped with his crew, and as much goods as they could save, into the cavern, where they proposed to lie till nightfall. Hatteraick himself, his mate Vanbeest Brown, and three others, of whom the declarant was one, went into the adjacent woods to communicate with some of their friends in the neighbourhood. They fell in with Kennedy unexpectedly, and Hatteraick and Brown, aware that he was the occasion of their disasters, resolved to murder him. He stated that he had seen them lay violent hands on the officer and drag him through the woods, but had not partaken in the assault nor witnessed its termination; that he returned to the cavern by a different route, where he again met Hatteraick and his accomplices; and the captain was in the act of giving an account how he and Brown had pushed a huge crag over, as Kennedy lay groaning on the beach, when Glossin suddenly appeared among them. To the whole transaction by which Hatteraick purchased his secrecy he was witness. Respecting young Bertram, he could give a distinct account till he went to India, after which he had lost sight of him until he unexpectedly met with him in Liddesdale. Gabriel Faa farther stated that he instantly sent notice to his aunt Meg Merrilies, as well as to Hatteraick, who he knew was then upon the coast; but that he had incurred his aunt's displeasure upon the latter account. He concluded, that his aunt had immediately declared that she would do all that lay in her power to help young Ellangowan to his right, even if it should be by informing against Dirk Hatteraick; and that many of her people assisted her besides himself, from a belief that she was gifted with supernatural inspirations. With the same purpose, he understood his aunt had given to Bertram the treasure of the tribe, of which she had the custody. Three or four gipsies, by the express command of Meg Merrilies, mingled in the crowd when the custom-house was attacked, for the purpose of liberating Bertram, which he had himself effected. He said, that in obeying Meg's dictates they did not pretend to estimate their propriety or rationality, the respect in which she was

held by her tribe precluding all such subjects of speculation. Upon farther interrogation, the witness added, that his aunt had always said that Harry Bertram carried that round his neck which would ascertain his birth. It was a spell, she said, that an Oxford scholar had made for him, and she possessed the smugglers with an opinion that to deprive him of it would occasion the loss of the vessel.

Bertram here produced a small velvet bag, which he said he had worn round his neck from his earliest infancy, and which he had preserved, first from superstitious reverence, and latterly from the hope that it might serve one day to aid in the discovery of his birth. The bag, being opened, was found to contain a blue silk case, from which was drawn a scheme of nativity. Upon inspecting this paper, Colonel Mannering instantly admitted it was his own composition; and afforded the strongest and most satisfactory evidence that the possessor of it must necessarily be the young heir of Ellangowan, by avowing his having first appeared in that country in the character of an astrologer.

'And now,' said Pleydell, 'make out warrants of commitment for Hatteraick and Glossin until liberated in due course of law. Yet,' he said, 'I am sorry for Glossin.'

'Now, I think,' said Mannering, 'he's incomparably the least deserving of pity of the two. The other's a bold fellow, though as hard as flint.'

'Very natural, Colonel,' said the Advocate, 'that you should be interested in the ruffian and I in the knave, that's all professional taste; but I can tell you Glossin would have been a pretty lawyer had he not had such a turn for the roguish part of the profession.'

'Scandal would say,' observed Mannering, 'he might not be the worse lawyer for that.'

'Scandal would tell a lie, then,' replied Pleydell, 'as she usually does. Law's like laudanum: it's much more easy to use it as a quack does than to learn to apply it like a physician.'

CHAPTER XXVIII

Unfit to live or die--O marble heart!
After him, fellows, drag him to the block.

Measure for Measure.

The jail at the county town of the shire of----was one of those old-fashioned dungeons which disgraced Scotland until of late years. When the prisoners and their guard arrived there, Hatteraick, whose violence and strength were well known, was secured in what was called the condemned ward. This was a large apartment near the top of the prison. A round bar of iron,[Footnote: See Note 9.] about the thickness of a man's arm above the elbow, crossed the apartment horizontally at the height of about six inches from the floor; and its extremities were strongly built into the wall at either end. Hatteraick's ankles were secured within shackles, which were connected by a chain, at the distance of about four feet, with a large iron ring, which travelled upon the bar we have described. Thus a prisoner might shuffle along the length of the bar from one side of the room to another, but could not retreat farther from it in any other direction than the brief length of the chain admitted. When his feet had been thus secured, the keeper removed his handcuffs and left his person at liberty in other respects. A pallet-bed was placed close to the bar of iron, so that the shackled prisoner might lie down at pleasure, still fastened to the iron bar in the manner described.

Hatteraick had not been long in this place of confinement before Glossin arrived at the same prison-house. In respect to his comparative rank and education, he was not ironed, but placed in a decent apartment, under the inspection of Mac-Guffog, who, since the destruction of the bridewell of Portanferry by the mob, had acted here as an under-turnkey. When Glossin was enclosed within this room, and had solitude and leisure to calculate all the chances against him and in his favour, he could not prevail upon himself to consider the game as desperate.

'The estate is lost,' he said, 'that must go; and, between Pleydell and Mac-Morlan, they'll cut down my claim on it to a trifle. My character--but if I get off with life and liberty I'll win money yet and varnish that over again. I knew not of the gauger's job until the rascal had done the deed, and, though I had some advantage by the contraband, that is no felony. But the kidnapping of the boy--there they touch me closer. Let me see. This Bertram was a child at the time; his evidence must be imperfect. The other fellow is a deserter, a gipsy, and an outlaw. Meg Merrilies, d-n her, is dead. These infernal bills! Hatteraick brought them with him, I suppose, to have the means of threatening me or extorting money from me. I must endeavour to see the rascal; must get him to stand steady; must persuade him to put some other colour upon the business.'

His mind teeming with schemes of future deceit to cover former villainy, he spent the time in arranging and combining them until the hour of supper. Mac-Guffog attended as turnkey on this occasion. He was, as we know, the old and special acquaintance of the prisoner who was now under his charge. After giving the turnkey a glass of brandy, and sounding him with one or two cajoling speeches, Glossin made it his request that he would help him to an interview with Dirk Hatteraick. 'Impossible! utterly impossible! it's contrary to the express orders of Mr. Mac-Morlan, and the captain (as the head jailor of a county jail is called in Scotland) would never forgie me.'

'But why should he know of it?' said Glossin, slipping a couple of guineas into Mac-Guffog's hand.

The turnkey weighed the gold and looked sharp at Glossin. ‘Ay, ay, Mr. Glossin, ye ken the ways o’ this place. Lookee, at lock-up hour I’ll return and bring ye upstairs to him. But ye must stay a’ night in his cell, for I am under needcessity to carry the keys to the captain for the night, and I cannot let you out again until morning; then I’ll visit the wards half an hour earlier than usual, and ye may get out and be snug in your ain birth when the captain gangs his rounds.’

When the hour of ten had pealed from the neighbouring steeple Mac-Guffog came prepared with a small dark lantern. He said softly to Glossin, ‘Slip your shoes off and follow me.’ When Glossin was out of the door, Mac-Guffog, as if in the execution of his ordinary duty, and speaking to a prisoner within, called aloud, ‘Good-night to you, sir,’ and locked the door, clattering the bolts with much ostentatious noise. He then guided Glossin up a steep and narrow stair, at the top of which was the door of the condemned ward; he unbarred and unlocked it, and, giving Glossin the lantern, made a sign to him to enter, and locked the door behind him with the same affected accuracy.

In the large dark cell into which he was thus introduced Glossin’s feeble light for some time enabled him to discover nothing. At length he could dimly distinguish the pallet-bed stretched on the floor beside the great iron bar which traversed the room, and on that pallet reposed the figure of a man. Glossin approached him. ‘Dirk Hatteraick!’

‘Donner and hagel! it is his voice,’ said the prisoner, sitting up and clashing his fetters as he rose; ‘then my dream is true! Begone, and leave me to myself; it will be your best.’

‘What! my good friend,’ said Glossin, ‘will you allow the prospect of a few weeks’ confinement to depress your spirit?’

‘Yes,’ answered the ruffian, sullenly, ‘when I am only to be released by a halter! Let me alone; go about your business, and turn the lamp from my face!’

‘Psha! my dear Dirk, don’t be afraid,’ said Glossin; ‘I have a glorious plan to make all right.’

‘To the bottomless pit with your plans!’ replied his accomplice; ‘you have planned me out of ship, cargo, and life; and I dreamt this moment that Meg Merrilies dragged you here by the hair and gave me the long clasped knife she used to wear; you don’t know what she said. Sturmwetter! it will be your wisdom not to tempt me!’

‘But, Hatteraick, my good friend, do but rise and speak to me,’ said Glossin.

‘I will not!’ answered the savage, doggedly. ‘You have caused all the mischief; you would not let Meg keep the boy; she would have returned him after he had forgot all.’

‘Why, Hatteraick, you are turned driveller!’

‘Wetter! will you deny that all that cursed attempt at Portanferry, which lost both sloop and crew, was your device for your own job?’

‘But the goods, you know--’

‘Curse the goods!’ said the smuggler, ‘we could have got plenty more; but, der deyvil! to lose the ship and the fine fellows, and my own life, for a cursed coward villain, that always works his own mischief with other people’s hands! Speak to me no more; I’m dangerous.’

‘But, Dirk--but, Hatteraick, hear me only a few words.’

‘Hagel! nein.’

‘Only one sentence.’

‘Tousand curses! nein.’

‘At least get up, for an obstinate Dutch brute!’ said Glossin, losing his temper and pushing Hatteraick with his foot.

‘Donner and blitzen!’ said Hatteraick, springing up and grappling with him; ‘you WILL have it then?’

Glossin struggled and resisted; but, owing to his surprise at the fury of the assault, so ineffectually that he fell under Hatteraick, the back part of his neck coming full upon the iron bar with stunning violence. The death-grapple continued. The room

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immediately below the condemned ward, being that of Glossin, was, of course, empty; but the inmates of the second apartment beneath felt the shock of Glossin's heavy fall, and heard a noise as of struggling and of groans. But all sounds of horror were too congenial to this place to excite much curiosity or interest.

In the morning, faithful to his promise, Mac-Guffog came. 'Mr. Glossin,' said he, in a whispering voice.

'Call louder,' answered Dirk Hatteraick.

'Mr. Glossin, for God's sake come away!'

'He'll hardly do that without help,' said Hatteraick.

'What are you chattering there for, Mac-Guffog?' called out the captain from below.

'Come away, for God's sake, Mr. Glossin!' repeated the turnkey.

At this moment the jailor made his appearance with a light. Great was his surprise, and even horror, to observe Glossin's body lying doubled across the iron bar, in a posture that excluded all idea of his being alive. Hatteraick was quietly stretched upon his pallet within a yard of his victim. On lifting Glossin it was found he had been dead for some hours. His body bore uncommon marks of violence. The spine where it joins the skull had received severe injury by his first fall. There were distinct marks of strangulation about the throat, which corresponded with the blackened state of his face. The head was turned backward over the shoulder, as if the neck had been wrung round with desperate violence. So that it would seem that his inveterate antagonist had fixed a fatal gripe upon the wretch's throat, and never quitted it while life lasted. The lantern, crushed and broken to pieces, lay beneath the body.

Mac-Morlan was in the town, and came instantly to examine the corpse. 'What brought Glossin here?' he said to Hatteraick.

'The devil!' answered the ruffian.

'And what did you do to him?'

‘Sent him to hell before me!’ replied the miscreant.

‘Wretch,’ said Mac-Morlan, ‘you have crowned a life spent without a single virtue with the murder of your own miserable accomplice!’

‘Virtue?’ exclaimed the prisoner. ‘Donner! I was always faithful to my shipowners--always accounted for cargo to the last stiver. Hark ye! let me have pen and ink and I’ll write an account of the whole to our house, and leave me alone a couple of hours, will ye; and let them take away that piece of carrion, donnerwetter!’

Mac-Morlan deemed it the best way to humour the savage; he was furnished with writing materials and left alone. When they again opened the door it was found that this determined villain had anticipated justice. He had adjusted a cord taken from the truckle-bed, and attached it to a bone, the relic of his yesterday’s dinner, which he had contrived to drive into a crevice between two stones in the wall at a height as great as he could reach, standing upon the bar. Having fastened the noose, he had the resolution to drop his body as if to fall on his knees, and to retain that posture until resolution was no longer necessary. The letter he had written to his owners, though chiefly upon the business of their trade, contained many allusions to the younker of Ellangowan, as he called him, and afforded absolute confirmation of all Meg Merrilies and her nephew had told.

To dismiss the catastrophe of these two wretched men, I shall only add, that Mac-Guffog was turned out of office, notwithstanding his declaration (which he offered to attest by oath), that he had locked Glossin safely in his own room upon the night preceding his being found dead in Dirk Hatteraick’s cell. His story, however, found faith with the worthy Mr. Skriegh and other lovers of the marvellous, who still hold that the Enemy of Mankind brought these two wretches together upon that night by supernatural interference, that they might fill up the cup of their guilt and receive its meed by murder and suicide.

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CHAPTER XXIX

To sum the whole--the close of all.

DEAN SWIFT.

As Glossin died without heirs, and without payment of the price, the estate of Ellangowan was again thrown upon the hands of Mr. Godfrey Bertram's creditors, the right of most of whom was, however, defeasible in case Henry Bertram should establish his character of heir of entail. This young gentleman put his affairs into the hands of Mr. Pleydell and Mr. Mac-Morlan, with one single proviso, that, though he himself should be obliged again to go to India, every debt justly and honourably due by his father should be made good to the claimant. Mannering, who heard this declaration, grasped him kindly by the hand, and from that moment might be dated a thorough understanding between them.

The hoards of Miss Margaret Bertram, and the liberal assistance of the Colonel, easily enabled the heir to make provision for payment of the just creditors of his father, while the ingenuity and research of his law friends detected, especially in the accounts of Glossin, so many overcharges as greatly diminished the total amount. In these circumstances the creditors did not hesitate to recognise Bertram's right, and to surrender to him the house and property of his ancestors. All the party repaired from Woodbourne to take possession, amid the shouts of the tenantry and the neighbourhood;

and so eager was Colonel Mannering to superintend certain improvements which he had recommended to Bertram, that he removed with his family from Woodbourne to Ellangowan, although at present containing much less and much inferior accommodation.

The poor Dominie's brain was almost turned with joy on returning to his old habitation. He posted upstairs, taking three steps at once, to a little shabby attic, his cell and dormitory in former days, and which the possession of his much superior apartment at Woodbourne had never banished from his memory. Here one sad thought suddenly struck the honest man--the books! no three rooms in Ellangowan were capable to contain them. While this qualifying reflection was passing through his mind, he was suddenly summoned by Mannering to assist in calculating some proportions relating to a large and splendid house which was to be built on the site of the New Place of Ellangowan, in a style corresponding to the magnificence of the ruins in its vicinity. Among the various rooms in the plan, the Dominie observed that one of the largest was entitled THE LIBRARY; and close beside was a snug, well-proportioned chamber, entitled Mr. SAMPSON'S APARTMENT. 'Prodigious, prodigious, pro-di-gi-ous!' shouted the enraptured Dominie.

Mr. Pleydell had left the party for some time; but he returned, according to promise, during the Christmas recess of the courts. He drove up to Ellangowan when all the family were abroad but the Colonel, who was busy with plans of buildings and pleasure-grounds, in which he was well skilled, and took great delight.

'Ah ha!' said the Counsellor, 'so here you are! Where are the ladies? where is the fair Julia?'

'Walking out with young Hazlewood, Bertram, and Captain Delaserre, a friend of his, who is with us just now. They are gone to plan out a cottage at Derncleugh. Well, have you carried through your law business?'

‘With a wet finger,’ answered the lawyer; ‘got our youngster’s special service retoured into Chancery. We had him served heir before the macers.’

‘Macers? who are they?’

‘Why, it is a kind of judicial Saturnalia. You must know, that one of the requisites to be a macer, or officer in attendance upon our supreme court, is, that they shall be men of no knowledge.’

‘Very well!’

‘Now, our Scottish legislature, for the joke’s sake I suppose, have constituted those men of no knowledge into a peculiar court for trying questions of relationship and descent, such as this business of Bertram, which often involve the most nice and complicated questions of evidence.’

‘The devil they have! I should think that rather inconvenient,’ said Mannering.

‘O, we have a practical remedy for the theoretical absurdity. One or two of the judges act upon such occasions as prompters and assessors to their own doorkeepers. But you know what Cujacius says, “Multa sunt in moribus dissentanea, multa sine ratione.” [Footnote: The singular inconsistency hinted at is now, in a great degree, removed.] However, this Saturnalian court has done our business; and a glorious batch of claret we had afterwards at Walker’s. Mac-Morlan will stare when he sees the bill.’

‘Never fear,’ said the Colonel, ‘we’ll face the shock, and entertain the county at my friend Mrs. Mac-Candlish’s to boot.’

‘And choose Jock Jabos for your master of horse?’ replied the lawyer.

‘Perhaps I may.’

‘And where is Dandie, the redoubted Lord of Liddesdale?’ demanded the advocate.

‘Returned to his mountains; but he has promised Julia to make a descent in summer, with the goodwife, as he calls her, and I don’t know how many children.’

‘O, the curly-headed varlets! I must come to play at Blind Harry and Hy Spy with them. But what is all this?’ added Pleydell, taking up the plans. ‘Tower in the centre to be an imitation of the Eagle Tower at Caernarvon--corps de logis--the devil! Wings--wings! Why, the house will take the estate of Ellangowan on its back and fly away with it!’

‘Why, then, we must ballast it with a few bags of sicca rupees,’ replied the Colonel.

‘Aha! sits the wind there? Then I suppose the young dog carries off my mistress Julia?’

‘Even so, Counsellor.’

‘These rascals, the post-nati, get the better of us of the old school at every turn,’ said Mr. Pleydell. ‘But she must convey and make over her interest in me to Lucy.’

‘To tell you the truth, I am afraid your flank will be turned there too,’ replied the Colonel.

‘Indeed?’

‘Here has been Sir Robert Hazlewood,’ said Mannering, ‘upon a visit to Bertram, thinking and deeming and opining--’

‘O Lord! pray spare me the worthy Baronet’s triads!’

‘Well, sir,’ continued Mannering, ‘to make short, he conceived that, as the property of Singleside lay like a wedge between two farms of his, and was four or five miles separated from Ellangowan, something like a sale or exchange or arrangement might take place, to the mutual convenience of both parties.’

‘Well, and Bertram--’

‘Why, Bertram replied, that he considered the original settlement of Mrs. Margaret Bertram as the arrangement most proper in the circumstances of the family, and that therefore the estate of Singleside was the property of his sister.’

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‘The rascal!’ said Pleydell, wiping his spectacles. ‘He’ll steal my heart as well as my mistress. Et puis?’

‘And then Sir Robert retired, after many gracious speeches; but last week he again took the field in force, with his coach and six horses, his laced scarlet waistcoat, and best bob-wig--all very grand, as the good-boy books say.’

‘Ay! and what was his overture?’

‘Why, he talked with great form of an attachment on the part of Charles Hazlewood to Miss Bertram.’

‘Ay, ay; he respected the little god Cupid when he saw him perched on the Dun of Singleside. And is poor Lucy to keep house with that old fool and his wife, who is just the knight himself in petticoats?’

‘No; we parried that. Singleside House is to be repaired for the young people, and to be called hereafter Mount Hazlewood.’

‘And do you yourself, Colonel, propose to continue at Woodbourne?’

‘Only till we carry these plans into effect. See, here’s the plan of my bungalow, with all convenience for being separate and sulky when I please.’

‘And, being situated, as I see, next door to the old castle, you may repair Donagild’s tower for the nocturnal contemplation of the celestial bodies? Bravo, Colonel!’

‘No, no, my dear Counsellor! Here ends THE ASTROLOGER.’

THE END

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NOTES TO VOLUME I

NOTE 1, p. 25

The groaning malt mentioned in the text was the ale brewed for the purpose of being drunk after the lady or goodwife's safe delivery. The ken-no has a more ancient source, and perhaps the custom may be derived from the secret rites of the Bona Dea. A large and rich cheese was made by the women of the family, with great affectation of secrecy, for the refreshment of the gossips who were to attend at the 'canny' minute. This was the ken-no, so called because its existence was secret (that is, presumed to be so) from all the males of the family, but especially from the husband and master. He was accordingly expected to conduct himself as if he knew of no such preparation, to act as if desirous to press the female guests to refreshments, and to seem surprised at their obstinate refusal. But the instant his back was turned the ken-no was produced; and after all had eaten their fill, with a proper accompaniment of the groaning malt, the remainder was divided among the gossips, each carrying a large portion home with the same affectation of great secrecy.

NOTE 2, p. 198

It is fitting to explain to the reader the locality described in chapter xxii. There is, or rather I should say there WAS, a little inn called Mumps's Hall, that is, being interpreted, Beggar's Hotel, near to Gilsland, which had not then attained its present fame as a Spa. It was a hedge alehouse, where the Border farmers of either country often stopped to refresh themselves and their nags, in their way to and from the fairs and trysts in Cumberland, and especially those who came from or went to Scotland,

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through a barren and lonely district, without either road or pathway, emphatically called the Waste of Bewcastle. At the period when the adventures described in the novel are supposed to have taken place, there were many instances of attacks by freebooters on those who travelled through this wild district, and Mumps's Ha' had a bad reputation for harbouring the banditti who committed such depredations.

An old and sturdy yeoman belonging to the Scottish side, by surname an Armstrong or Elliot, but well known by his soubriquet of Fighting Charlie of Liddesdale, and still remembered for the courage he displayed in the frequent frays which took place on the Border fifty or sixty years since, had the following adventure in the Waste, which suggested the idea of the scene in the text:--

Charlie had been at Stagshawbank Fair, had sold his sheep or cattle, or whatever he had brought to market, and was on his return to Liddesdale. There were then no country banks where cash could be deposited and bills received instead, which greatly encouraged robbery in that wild country, as the objects of plunder were usually fraught with gold. The robbers had spies in the fair, by means of whom they generally knew whose purse was best stocked, and who took a lonely and desolate road homeward,--those, in short, who were best worth robbing and likely to be most easily robbed.

All this Charlie knew full well; but he had a pair of excellent pistols and a dauntless heart. He stopped at Mumps's Ha', notwithstanding the evil character of the place. His horse was accommodated where it might have the necessary rest and feed of corn; and Charlie himself, a dashing fellow, grew gracious with the landlady, a buxom quean, who used all the influence in her power to induce him to stop all night. The landlord was from home, she said, and it was ill passing the Waste, as twilight must needs descend on him before he gained the Scottish side, which was reckoned the safest. But Fighting Charlie, though he suffered himself to be detained later than was prudent, did not account Mumps's Ha' a safe place to quarter in during the night. He tore himself

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away, therefore, from Meg's good fare and kind words, and mounted his nag, having first examined his pistols, and tried by the ramrod whether the charge remained in them.

He proceeded a mile or two at a round trot, when, as the Waste stretched black before him, apprehensions began to awaken in his mind, partly arising out of Meg's unusual kindness, which he could not help thinking had rather a suspicious appearance. He therefore resolved to reload his pistols, lest the powder had become damp; but what was his surprise, when he drew the charge, to find neither powder nor ball, while each barrel had been carefully filled with TOW, up to the space which the loading had occupied! and, the priming of the weapons being left untouched, nothing but actually drawing and examining the charge could have discovered the inefficiency of his arms till the fatal minute arrived when their services were required. Charlie bestowed a hearty Liddesdale curse on his landlady, and reloaded his pistols with care and accuracy, having now no doubt that he was to be waylaid and assaulted. He was not far engaged in the Waste, which was then, and is now, traversed only by such routes as are described in the text, when two or three fellows, disguised and variously armed, started from a moss-hag, while by a glance behind him (for, marching, as the Spaniard says, with his beard on his shoulder, he reconnoitred in every direction) Charlie instantly saw retreat was impossible, as other two stout men appeared behind him at some distance. The Borderer lost not a moment in taking his resolution, and boldly trotted against his enemies in front, who called loudly on him to stand and deliver; Charlie spurred on, and presented his pistol. 'D--n your pistol,' said the foremost robber, whom Charlie to his dying day protested he believed to have been the landlord of Mumps's Ha', 'd--n your pistol! I care not a curse for it.' 'Ay, lad,' said the deep voice of Fighting Charlie, 'but the TOW'S out now.' He had no occasion to utter another word; the rogues, surprised at finding a man of redoubted courage well armed, instead of being defenceless, took to the moss in every direction, and he passed on his way without farther molestation.

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The author has heard this story told by persons who received it from Fighting Charlie himself; he has also heard that Mumps's Ha' was afterwards the scene of some other atrocious villainy, for which the people of the house suffered. But these are all tales of at least half a century old, and the Waste has been for many years as safe as any place in the kingdom.

NOTE 3, p. 213

The author may here remark that the character of Dandie Dinmont was drawn from no individual. A dozen, at least, of stout Liddesdale yeomen with whom he has been acquainted, and whose hospitality he has shared in his rambles through that wild country, at a time when it was totally inaccessible save in the manner described in the text, might lay claim to be the prototype of the rough, but faithful, hospitable, and generous farmer. But one circumstance occasioned the name to be fixed upon a most respectable individual of this class, now no more. Mr. James Davidson of Hindlee, a tenant of Lord Douglas, besides the points of blunt honesty, personal strength, and hardihood designed to be expressed in the character of Dandie Dinmont, had the humour of naming a celebrated race of terriers which he possessed by the generic names of Mustard and Pepper (according as their colour was yellow or greyish-black), without any other individual distinction except as according to the nomenclature in the text. Mr. Davidson resided at Hindlee, a wild farm on the very edge of the Teviotdale mountains, and bordering close on Liddesdale, where the rivers and brooks divide as they take their course to the Eastern and Western seas. His passion for the chase in all its forms, but especially for fox-hunting, as followed in the fashion described in chapter xxv, in conducting which he was skilful beyond most men in the South Highlands, was the distinguishing point in his character.

When the tale on which these comments are written became rather popular, the name of Dandie Dinmont was generally given to him, which Mr. Davidson received with great good-humour, only saying, while he distinguished the author by the name applied to him in the country, where his own is so common--'that the Sheriff had not written about him mair than about other folk, but only about his dogs.' An English lady of high rank and fashion, being desirous to possess a brace of the celebrated Mustard and Pepper terriers, expressed her wishes in a letter which was literally addressed to Dandie Dinmont, under which very general direction it reached Mr. Davidson, who was justly proud of the application, and failed not to comply with a request which did him and his favourite attendants so much honour.

I trust I shall not be considered as offending the memory of a kind and worthy man, if I mention a little trait of character which occurred in Mr. Davidson's last illness. I use the words of the excellent clergyman who attended him, who gave the account to a reverend gentleman of the same persuasion:--

'I read to Mr. Davidson the very suitable and interesting truths you addressed to him. He listened to them with great seriousness, and has uniformly displayed a deep concern about his soul's salvation. He died on the first Sabbath of the year (1820); an apoplectic stroke deprived him in an instant of all sensation, but happily his brother was at his bedside, for he had detained him from the meeting-house that day to be near him, although he felt himself not much worse than usual. So you have got the last little Mustard that the hand of Dandie Dinmont bestowed.

'His ruling passion was strong even on the eve of death. Mr. Baillie's fox-hounds had started a fox opposite to his window a few weeks ago, and as soon as he heard the sound of the dogs his eyes glistened; he insisted on getting out of bed, and with much difficulty got to the window and there enjoyed the fun, as he called it. When I came down to ask for him, he said, "he had seen Reynard, but had not seen his death. If it had been the will of Providence," he added, "I would have liked to have been after him; but I am glad

that I got to the window, and am thankful for what I saw, for it has done me a great deal of good." Notwithstanding these eccentricities (adds the sensible and liberal clergyman), I sincerely hope and believe he has gone to a better world, and better company and enjoyments.'

If some part of this little narrative may excite a smile, it is one which is consistent with the most perfect respect for the simple-minded invalid and his kind and judicious religious instructor, who, we hope, will not be displeased with our giving, we trust, a correct edition of an anecdote which has been pretty generally circulated. The race of Pepper and Mustard are in the highest estimation at this day, not only for vermin-killing, but for intelligence and fidelity. Those who, like the author, possess a brace of them, consider them as very desirable companions.

NOTE 4, p. 232

The cleek here intimated is the iron hook, or hooks, depending from the chimney of a Scottish cottage, on which the pot is suspended when boiling. The same appendage is often called the crook. The salmon is usually dried by hanging it up, after being split and rubbed with salt, in the smoke of the turf fire above the cleeks, where it is said to 'reist,' that preparation being so termed. The salmon thus preserved is eaten as a delicacy, under the name of kipper, a luxury to which Dr. Redgill has given his sanction as an ingredient of the Scottish breakfast.--See the excellent novel entitled MARRIAGE.

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NOTE 5, p. 234

The distinction of individuals by nicknames when they possess no property is still common on the Border, and indeed necessary, from the number of persons having the same name. In the small village of Lustruther, in Roxburghshire, there dwelt, in the memory of man, four inhabitants called Andrew, or Dandie, Oliver. They were distinguished as Dandie Eassil-gate, Dandie Wassilgate, Dandie Thumbie, and Dandie Dumbie. The two first had their names from living eastward and westward in the street of the village; the third from something peculiar in the conformation of his thumb; the fourth from his taciturn habits.

It is told as a well-known jest, that a beggar woman, repulsed from door to door as she solicited quarters through a village of Annandale, asked, in her despair, if there were no Christians in the place. To which the hearers, concluding that she inquired for some persons so surnamed, answered, 'Na, na, there are nae Christians here; we are a' Johnstones and Jardines.'

NOTE 6, p. 244

The mysterious rites in which Meg Merrilies is described as engaging belong to her character as a queen of her race. All know that gipsies in every country claim acquaintance with the gift of fortune-telling; but, as is often the case, they are liable to the superstitions of which they avail themselves in others. The correspondent of Blackwood, quoted in the Introduction to this Tale, gives us some information on the subject of their credulity.

'I have ever understood,' he says, speaking of the Yetholm gipsies,' that they are extremely superstitious, carefully noticing the formation of the clouds, the flight of

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particular birds, and the soughing of the winds, before attempting any enterprise. They have been known for several successive days to turn back with their loaded carts, asses, and children, upon meeting with persons whom they considered of unlucky aspect; nor do they ever proceed on their summer peregrinations without some propitious omen of their fortunate return. They also burn the clothes of their dead, not so much from any apprehension of infection being communicated by them, as the conviction that the very circumstance of wearing them would shorten the days of their living. They likewise carefully watch the corpse by night and day till the time of interment, and conceive that "the deil tinkles at the lyke-wake" of those who felt in their dead-thraw the agonies and terrors of remorse.'

These notions are not peculiar to the gipsies; but, having been once generally entertained among the Scottish common people, are now only found among those who are the most rude in their habits and most devoid of instruction. The popular idea, that the protracted struggle between life and death is painfully prolonged by keeping the door of the apartment shut, was received as certain by the superstitious eld of Scotland. But neither was it to be thrown wide open. To leave the door ajar was the plan adopted by the old crones who understood the mysteries of deathbeds and lykewakes. In that case there was room for the imprisoned spirit to escape; and yet an obstacle, we have been assured, was offered to the entrance of any frightful form which might otherwise intrude itself. The threshold of a habitation was in some sort a sacred limit, and the subject of much superstition. A bride, even to this day, is always lifted over it, a rule derived apparently from the Romans.

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NOTES TO VOLUME 2

NOTE 1, p. 93

The roads of Liddesdale, in Dandie Dinmont's days, could not be said to exist, and the district was only accessible through a succession of tremendous morasses. About thirty years ago the author himself was the first person who ever drove a little open carriage into these wilds, the excellent roads by which they are now traversed being then in some progress. The people stared with no small wonder at a sight which many of them had never witnessed in their lives before.

NOTE 2, p. 102

The Tappit Hen contained three quarts of claret--

Weel she loed a Hawick gill,
And leugh to see a tappit hen.

I have seen one of these formidable stoups at Provost Haswell's, at Jedburgh, in the days of yore It was a pewter measure, the claret being in ancient days served from the tap, and had the figure of a hen upon the lid. In later times the name was given to a glass bottle of the same dimensions. These are rare apparitions among the degenerate topers of modern days.

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NOTE 3, p. 102

The account given by Mr. Pleydell of his sitting down in the midst of a revel to draw an appeal case was taken from a story told me by an aged gentleman of the elder President Dundas of Amiston (father of the younger President and of Lord Melville). It had been thought very desirable, while that distinguished lawyer was king's counsel, that his assistance should be obtained in drawing an appeal case, which, as occasion for such writings then rarely occurred, was held to be matter of great nicety. The solicitor employed for the appellant, attended by my informant acting as his clerk, went to the Lord Advocate's chambers in the Fishmarket Close, as I think. It was Saturday at noon, the Court was just dismissed, the Lord Advocate had changed his dress and booted himself, and his servant and horses were at the foot of the close to carry him to Arniston. It was scarcely possible to get him to listen to a word respecting business. The wily agent, however, on pretence of asking one or two questions, which would not detain him half an hour, drew his Lordship, who was no less an eminent ban vivant than a lawyer of unequalled talent, to take a whet at a celebrated tavern, when the learned counsel became gradually involved in a spirited discussion of the law points of the case. At length it occurred to him that he might as well ride to Arniston in the cool of the evening. The horses were directed to be put in the stable, but not to be unsaddled. Dinner was ordered, the law was laid aside for a time, and the bottle circulated very freely. At nine o'clock at night, after he had been honouring Bacchus for so many hours, the Lord Advocate ordered his horses to be unsaddled; paper, pen, and ink were brought; he began to dictate the appeal case, and continued at his task till four o'clock the next morning. By next day's post the solicitor sent the case to London, a chef-d'oeuvre of its kind; and in which, my informant assured me, it was not necessary on revisal to correct five words. I am not, therefore, conscious of having overstepped accuracy in describing the manner in which Scottish lawyers of the old time occasionally united the worship of Bacchus with that of Themis. My informant was Alexander Keith, Esq.,

grandfather to my friend, the present Sir Alexander Keith of Ravelstone, and apprentice at the time to the writer who conducted the cause.

NOTE 4, p. 180

We must again have recourse to the contribution to Blackwood's Magazine, April 1817:--

'To the admirers of good eating, gipsy cookery seems to have little to recommend it. I can assure you, however, that the cook of a nobleman of high distinction, a person who never reads even a novel without an eye to the enlargement of the culinary science, has added to the "Almanach des Gourmands" a certain Potage a la Meg Merrilies de Derndeugh, consisting of game and poultry of all kinds, stewed with vegetables into a soup, which rivals in savour and richness the gallant messes of Camacho's wedding; and which the Baron of Bradwardine would certainly have reckoned among the epulae lautiores.'

The artist alluded to in this passage is Mons. Florence, cook to Henry and Charles, late Dukes of Buccleuch, and of high distinction in his profession.

NOTE 5, p. 212

The Burnet whose taste for the evening meal of the ancients is quoted by Mr. Pleydellwas the celebrated metaphysician and excellent man, Lord Monboddo, whose coenae will not be soon forgotten by those who have shared his classic hospitality. As a Scottish judge he took the designation of his family estate. His philosophy, as is well

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known, was of a fanciful and somewhat fantastic character; but his learning was deep, and he was possessed of a singular power of eloquence, which reminded the hearer of the os rotundum of the Grove or Academe. Enthusiastically partial to classical habits, his entertainments were always given in the evening, when there was a circulation of excellent Bourdeaux, in flasks garlanded with roses, which were also strewed on the table after the manner of Horace. The best society, whether in respect of rank or literary distinction, was always to be found in St. John's Street, Canongate. The conversation of the excellent old man, his high, gentleman-like, chivalrous spirit, the learning and wit with which he defended his fanciful paradoxes, the kind and liberal spirit of his hospitality, must render these noctes coenaeque dear to all who, like the author (though then young), had the honour of sitting at his board.

NOTE 6, p. 215

It is probably true, as observed by Counsellor Pleydell, that a lawyer's anxiety about his case, supposing him to have been some time in practice, will seldom disturb his rest or digestion. Clients will, however, sometimes fondly entertain a different opinion. I was told by an excellent judge, now no more, of a country gentleman who, addressing his leading counsel, my informer, then an advocate in great practice, on the morning of the day on which the case was to be pleaded, said, with singular bonhomie, 'Weel, my Lord (the counsel was Lord Advocate), the awful day is come at last. I have nae been able to sleep a wink for thinking of it; nor, I daresay, your Lordship either.'

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NOTE 7, p. 235

Whistling, among the tenantry of a large estate, is when an individual gives such information to the proprietor or his managers as to occasion the rent of his neighbour's farms being raised, which, for obvious reasons, is held a very unpopular practice.

NOTE 8, p. 286

This hard word is placed in the mouth of one of the aged tenants. In the old feudal tenures the herezeld constituted the best horse or other animal on the vassals' lands, become the right of the superior. The only remnant of this custom is what is called the sasine, or a fee of certain estimated value, paid to the sheriff of the county, who gives possession to the vassals of the crown.

NOTE 9, p. 301

This mode of securing prisoners was universally practised in Scotland after condemnation. When a man received sentence of death he was put upon THE GAD, as it was called, that is, secured to the bar of iron in the manner mentioned in the text. The practice subsisted in Edinburgh till the old jail was taken down some years since, and perhaps may be still in use.

zaid n. adwan

GLOSSARY

'A, he, I.
a', all.
abide, endure.
ablins, aiblins, perhaps.
abune, above.
ae, one.
aff, off.
afore, before.
a-guisarding, masquerading.
ahint, behind.
aik, an oak.
ails, hinders, prevents.
ain, own.
amang, among.
an, if.
ance, once.
ane, one.
anent, about.
aneuch, enough.
auld, old.
auld threep, a superstitious notion.
avise, advise, deliberate.
awa', away.
aweel, well.
awfu', awful.
awmous, alms.
aye, ever.
bairn, a child.
baith, both.
ballant, a ballad.
banes, bones.
bannock, a flat round or oval cake.
barken, stiffen, dry to a crust.
barrow-trams, the shafts of a hand barrow.
baulks, ridges.

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berling, a galley.
bield, a shelter, a house.
biggit, built.
billie, a brother, a companion.
bing out and tour, go out and watch.
binna, be not.
birk, a birch tree.
bit, a little.
bittle, beat with a bat.
bittock, a little bit.
Black Peter, a portmanteau.
blate, shy, bashful.
blawn, blown.
blear, obscure.
blude, bluid, blood.
blunker, a cloth printer.
blythe, glad.
boddle, a copper coin worth one third of a penny.
bogle, a goblin, a spectre.
bonnet, a cap.
bonnie, bonny, pretty, fine.
bonspiel, a match game at curling.
bottle-head, beetle-head, stupid fellow.
bow, a boll.
bowster, a bolster.
braw, fine.
brigg, a bridge.
brock, a badger, a dirty fellow.
brod, a church collection plate.
buckkar, a smuggling lugger.
bully-huff, a bully, a braggart.
burn, a brook.
bye, besides.
ca', call.
cake-house, a house of entertainment.
callant, a stripling.
cam, came.
canny, lucky, cautious.
cantle, a fragment.
canty, cheerful.
capons, castrated cocks.
carle, a churl, an old man.

zaid n. adwan

cast, lot, fate.
chapping-stick, a stick to strike with.
cheerer, spirits and hot water.
chield, a young man.
chumlay, a chimney.
clanjamfray, rabble.
clashes, lies, scandal.
claught, clutched, caught.
clecking, hatching.
clodded, threw heavily.
close, a lane, a narrow passage.
clour, a heavy blow.
cloyed a dud, stolen a rag.
collieshangie, an uproar.
come o' will, a child of love.
cottar, cottage.
cramp-ring, shackles, fetters.
cranking, creaking.
craw, crow.
creel, a basket.
cuddy, an ass.
cusp, an entrance to a house.
cusser, a courser, a stallion.
daft, mad, foolish.
darkmans, night.
daurna, dare not.
day-dawing, dawn.
dead-thraw, death-agony.
death-ruckle, death-rattle.
deil-be-lickit, nothing, naught.
dike, a wall, a ditch.
dinging, slamming.
dingle, a dell, a hollow.
dizzen, a dozen.
doo, a dove.
dooket, dukit, a dovecot.
doun, down.
douse the glim, put out the light.
dow, list, wish.
drap, a drop.
drumming, driving.
dub, a puddle.

zaid n. adwan

duds, clothes.
eassel, provincial for eastward.
een, eyes.
endlang, along.
eneugh, enough.
evening, putting on the same level.
faem, foam.
fair-strae, natural.
fambles, hands.
fash, trouble.
fauld, a fold.
fause, false.
feared, afraid.
fearsome, frightful.
feck, a quantity.
feckless, feeble.
fell, a skin.
fernseed, gather the, make invisible.
fie, mad, foredoomed.
fient a bit, never a bit
fient a haet, not the least.
fire-raising, setting fire.
firlot, a quarter of a boll.
fit, a foot.
flesh, fleesh, a fleece.
flick, cut.
flit, remove.
fond, glad to.
forbears, ancestors.
forbye, besides.
foumart, a polecat.
fowk, people.
frae, from.
frummagem'd, throttled, hanged.
fu', full.
fule-body, a foolish person.
gae, go.
gaed, went.
gane, gone.
gang, go.
gang-there-out, wandering.
gangrel, vagrant.

Zaid H. adwan

gar, make.
gate, gait, way.
gaun, going.
gay, gey, very.
gelding, a castrated horse.
gentle or semple, high born or common people.
gie, give.
gliffing, a surprise, an instant.
glower, glare.
gowan, a field daisy.
gowd, gold.
gowpen, a double handful.
greet, weep.
grieve, an overseer.
grippet, grasped, caught.
grunds, grounds.
gude, guid, good.
gudeman, master of a house.
gyre-carlings, witches.
ha', hall.
hadden, held, gone.
hae, have.
hafflin, half grown.
haick, hack.
haill, whole.
hallan, a partition.
hame, home.
hank, a skein of yarn.
hansel, a present.
hantle, a quantity.
haud, hauld, hold.
hauden, held.
heezie, a lift.
herds, herders.
heuch, a crag, a steep bank.
hinging, hanging.
hinney, honey.
hirsel, a flock.
hizzie, a housewife, a hussy.
hog, a young sheep.
horning, a warrant for a debtor.
houdie, a midwife.

Zaid n. adwan

howm, flat low ground.
humble-cow, a cow without horns.
hunds, hounds.
ilka, every.
ingans, onions.
ingleside, fireside.
I'se, I'll.
ither, other.
jaw-hole, a sink.
Jethart, Jedburgh.
jo, a sweetheart.
kahn, a skiff.
kaim, a low ridge, a comb.
kain, part of a farm-rent paid in fowls.
keep, a stronghold.
keepit, kept, attended.
ken, know.
kenna, do not know.
kibe, an ulcerated chilblain, a chapped heel.
killogie, the open space before a kiln fire.
kilt, upset.
kilting, girding or tucking up.
kimmer, a female gossip.
kinder, children.
kipper, cured salmon.
kirk, church.
kist, a chest, a coffin.
kitchen-mort, kinchen-mort, a girl.
kittle, tickle, ticklish.
kitt, a number, the whole.
knave, a boy.
knevell, knead, beat severely.
kobold, a hobgoblin.
laird, lord of the manor.
lampit, a limpet.
landloupers, persons of wandering tendencies.
lang, long.
lang or, long before.
lang-lugged, long-eared.
langsyne, long ago.
lap and paunel, liquor and food.
lassie, a young girl.

Zaid n. adwan

latch, mire.
leddy, a lady.
lee, pasture land.
leg bail, to give, to run away.
letter-gae, the precentor is called by Allan Ramsay
'the letter-gae of haly rhyme.'
leugh, laughed.
levin, lightning, scorn.
licks, blows.
lift, the sky.
like, as it were.
limmer, a jade, a hussy.
links, the windings of a river.
lippen, trust.
loan, an open place, a lane.
loaning, a milking place.
long bowls, ninepins.
looby, a booby, a lout.
loon, a clown, a rogue.
loup, leap, start.
low, blaze, flame.
luckie, an old woman.
lugs, ears.
lunt, blaze, torch.
lykewake, a watch at night over a dead body.
mair, more.
mair by token, especially.
maist, most.
maun, must.
meddling and making, interfering.
messan, a little dog.
milling in the darkmans, murder by night.
mind, remember.
minded, looked after.
mirk, dark; pit mirk, pitch dark.
moaned, mourned.
Monanday, Monday.
mony, many.
moonshie, a secretary.
morn, tomorrow.
moss, a morass.
moss-hag, a pit, a slough.

zaid n. adwan

muckle, great, much.
muir, a moor, a heath.
muscavado, unrefined sugar.
mutchkin, a measure equal to an English pint.
na, nae, no.
nane, none.
nathless, nevertheless.
needna, need not.
nice, simple.
now, the, at once.
odd-come-shortly, chance time not far in the future.
ony, any.
or, ere.
orra, odd, occasional.
orra time, occasionally.
o't, of it.
out, out in rebellion.
out of house and hauld, destitute.
outcast, a falling out, a quarrel.
ower, over.
owt, the exterior, out.
paiks, punishment.
parritch, oatmeal porridge.
peat-hag, a bog.
penny-stane, a stone quoit.
periapts, amulets.
pike, pick.
pinners, a headdress.
pirn, a reel.
pit, put.
plash, splash.
plough-gate of land, land that can be tilled with one plough.
pock, a pouch, a bag.
poinded, impounded.
poschay, a post-chaise.
pouches, pockets.
pow, the head.
powny, a pony.
preceese, exact.
precentor, a leader of congregational singing.
prin, a pin.
puir, poor.

zain n. adwan

quean, a young woman, a wench.
rade, rode.
ramble, a spree.
rampauging, raging.
randle-tree, a horizontal bar across a chimney, on which pot-hooks are hung; sometimes used as an opprobrious epithet.
randy, wild.
ranging and riping, scouring and searching.
rape, rope.
rasp-house, a custom-house.
red cock craw, kindle a fire.
redding-straik, a blow received when trying to separate combatants.
reek, smoke.
reif and wear, robbery and injury.
reise, a bough.
reist, smoke.
reiver, a robber.
retour, return of a writ.
rin, run.
ripe, search.
rive, rend, rob.
rotten, rottan, a rat.
roup, an auction.
roupit, sold at auction.
routing, snoring, bellowing.
rubbit, robbed.
rump and dozen, meat and drink, a good dinner.
run goods, smuggled goods.
sack, sackcloth.
sae, so.
saft, soft.
sain, bless.
sair, sore.
sail, shall.
samyn, the same.
sang, song.
sark, a shirt.
saugh, a willow tree.
saul, soul.
saut, salt.
sax, six.

zaid n. adwan

scaff-raff, riff raff.
scart, scratched, written on.
schnaps, a dram of liquor.
scones, flat round cakes.
scouring the cramp-ring, said metaphorically for being thrown into fetters or, generally, into prison.
screed o' drink, a drinking bout.
sell'd, sold.
semple, simple, poor people.
shake-rag, a tatterdemalion.
shanks, legs.
shealing, sheiling, a shed, a hut.
shear, cut.
sherra, a sheriff.
shoeing-horn, something that leads to more drinking.
shoon, shoes.
shouther, a shoulder.
sic, so, such.
siclike, such.
siller, money.
sinsyne, since.
skeel, a bucket, a tub.
slack, a hollow, a morass.
slap, a breach.
sleepery, sleepy.
slow-hund, a sleuth hound.
sma', small.
smack, smaik, a rogue, a low wretch.
snaw, snow.
soup o' drink, a spoonful.
souple, a cudgel.
spae, foretell.
speir, ask.
sprug, a sparrow.
spunk, a spark.
start, betray.
stell, a stall, a covert.
stickit, stopped, hindered.
stir your gear, disturb your goods.
stark, a heifer, a bullock.
stiver, a small Dutch coin.
stoppit, stopped.

zain n. adwan

stoup, a drinking vessel, a wooden pitcher.
stown, stolen.
strae, straw.
strammel, straw.
streik, stretch.
suld, should.
sune, soon.
sunkets, delicacies, provisions of any kind.
sunkie, a low stool.
swear, difficult.
swure, swore.
syne, since.
ta'en, taken.
tait, a tuft.
tak, take.
tap, the top.
tass, a cup.
tat, that.
tell'd, told.
tent, care.
thack, thatch.
thae, those.
thegither, together.
thereawa', thence, thereabout.
thrapple, the windpipe, the throat.
thristle, a thistle.
till, to.
tippenny, ale at twopence a bottle.
tod, a fox.
tolbooth, a jail.
toom, empty.
tow, a rope.
trine to the cheat, get hanged.
troking, intercourse, trafficking.
trow, trust.
tulzie, tuilzie, a scuffle, a brawl.
twa, two.
tweel, a web.
tyke, a cur.
umwhile, formerly, late.
uncanny, weird, unlucky.
unco, strange, very.

zaid n. adwan

uphaud, uphold.
upright man, the leader (and greatest rogue) of the gang.
wa', wall.
wad, would.
wadded, wedded.
wae, woe.
waefu', woeful.
wale, choice.
ware, spend.
wark, work.
warld, the world.
warlock, a wizard.
waster, a long spear.
waur, worse.
wean, a young child.
wear, war.
weary fa', curse.
wedder, a wether.
wee, small.
weel, well.
weel-faured, well-favored, prepossessing.
weize, direct, incline.
wessel, westward.
wha, who.
whaap, the (or the Hope), is the sheltered part or hollow of the hill. Hoff, howff, haaf, and haven are all modifications of the same word.
wheen, a few.
whigging, jogging.
whiles, sometimes.
whilk, which.
whin, a few.
whinger, a kind of knife, a hanger.
whistle, give information against one.
whittret, a weasel.
wi', with.
win, get.
witters, the barbs of the spear.
woo', wool.
woodie, wuddie, a rope, a halter, the gallows.
worricow, a hobgoblin.
wots na, does not know.

zain n. adwan

wrang, wrong.
wrang side of the blanket, illegitimate.
writer, an attorney.
wuddie, a rope, the gallows.
wuss, wish.
yaffing, chattering, barking.
yet, yere, your.
yont, beyond.

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Part six

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THE LIGHT OF EGYPT OR THE SCIENCE OF THE SOUL AND THE STARS

VOLUME II

BY

THOMAS H. BURGOYNE

ZANONI

"Write the things which thou hast seen, and the things which are, and the things which shall be hereafter; THE MYSTERY OF THE SEVEN STARS, which thou sawest in my right hand." Revelations, Chap. I, 19 and 20.

Dedication

To the Budding Spirituality of the Occident and
The Rising Genius of the Western Race,
This work is respectfully dedicated,
By the Author

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PUBLISHER'S PREFACE

No explanation is thought necessary, further than to corroborate the author in all he has said in his somewhat unusual preface.

We have enjoyed, immensely, our work of giving to the world this remarkable series of books on Occultism, and appreciate the large patronage they have received from the reading public, for which we return our sincere thanks. We hope the near future will give us the work referred to by the author in his preface, as doubtless it will be a great revelation of Occult laws that govern our little Earth in its relation to our Sun and solar system, of which it forms a part, and give much light on those subjects that have been shrouded in mystery.

"The Light of Egypt" will be found to be an Occult library in itself, a textbook of esoteric knowledge, setting forth the "wisdom Religion" of life, as taught by the Adepts of Hermetic Philosophy. It will richly repay all who are seeking the higher life to carefully study this book, as it contains in a nutshell the wisdom of the ages regarding man and his destiny, here and hereafter. The London and American first edition, also the French edition, Vol. I, met with lively criticism from Blavatsky Theosophists, because it annihilates that agreeable delusion of "Karma" and "Reincarnation" from the minds of all lovers of truth for truth's sake.

"The Tablets of Aeth" is a great and mighty work, as it contains the very quintessence of Occult and Hermetic philosophy, as revealed by spiritual law. "Penetralia" is a new revelation, and invaluable to Occult students, as it is the personal experience of a developed soul.

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To all lovers of Truth we respectfully recommend this Book of Books, as it has justly been called by many who are competent to criticise its teachings. It was the author's wish that his name be withheld from the public, knowing full well that the teachings contained in his works will prove his motto: "Omnia Vincit Veritas."

Now that our author has passed beyond the power of the world to flatter or condemn, and has given his thought for the uplifting of the human family, it is but simple justice that he be made known to the world as its teacher of a higher thought than has preceded him. He shrank from public notoriety, and modestly refused to be publicly known to the world as one of its spiritual leaders for the cycle upon which the Earth and its inhabitants have entered, but the time has come to announce publicly the authorship of the works published anonymously under the symbol of {}, and his writings are to be judged by their merits, and not by prejudice nor personal bias as viewed from the human plane of life.

He moved in the world, comparatively unknown to the world at large, and his greatest friends, though mystified, did not understand his true worth in spiritual greatness. The mask, or person, often hides from view the angel in disguise. Therefore our author must be judged by what he has written, and not by his personators and calumniators. The true student of Occultism always judges the tree by its fruits. If the writings of our author are judged by this standard, they will stand as a beacon light to higher rounds than ours.

PREFACE

These lessons were issued to a few of my pupils as "Private Studies in Occultism," several years ago. The time has now come to give them to the world as a companion to the first volume of "The Light of Egypt."

It is the duty of Occult students to familiarize themselves with the subjects herein discussed. They should know the ideas of our ancestors regarding them and be familiar with their thought, in order to appreciate the sublime wisdom and knowledge of Nature as taught by them, otherwise we are sure to do them, as well as ourselves, great injustice. The history of Occultism bears out the fact that there is very little that is new to the present time.

The arrangement and classification of thought differs during each cycle of time on the different spirals, and, like the fruitage on lower rounds of Nature's progressive wheel of destiny, variety and quality are diverse, so, likewise, do we find the mental manifestations. This age, however, is blessed with a great variety and abundance of thought, in clear-cut language, that should enlighten the races of the Earth with Mother Nature's modus operandi in every department of human thought.

We hope these chapters will aid to this end, and doubtless many students will find in them the key to unlock the mysteries veiled in symbol and hieroglyphic by ancient writers. The author's object has been to make plain and easy of understanding these subjects. Much, however, has been left for private study and research, for many large volumes might be filled if a detailed description of each subject were entered upon, which task is left for those who feel so inclined. A rich reward is in store for those spiritual investigators who will follow out the paths and lines herein mapped out on Spiritual Astrology, Alchemy, and other subjects. Meditation and aspiration will open up hidden treasures that will prove a boon to Occult students, for Astrology and Alchemy are the two grand sciences that explain the why and reasons for what we see and experience on every plane of life. In this age there should be no concealing of these Divine truths. We cannot hide anything in the air, and for this reason the Sun in Aquarius will unearth and reveal to man all that the present cycle has to give during the Sun's passage through this airy sign.

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The watery sign, Pisces, through which the Sun manifested during the past 2,160 years, gave up to man their secret powers and hidden attributes in steam as a motive power, which man has completely mastered. He will likewise master the airy forces during the present sub-cycle of the Sun in Aquarius. Already we see him using liquid air and compressed air as a motive power, which will gradually take the place of steam as the Sun gets farther into the sign, or constellation, of Aquarius. Men will become immensely wiser than they have been, and it is to be hoped they will leave the written record of their achievements in science and art to show to future races their status of mind on every subject for the edification and enlightenment of coming races.

Our ancestors were denied this great privilege. Consequently their wisdom is only symbolized to us in a way that it is difficult to read and interpret correctly, yet we who have the key to their symbols can read accurately the truth they wish to convey, which stands out clearly to all capable of understanding and interpreting symbolism and correspondence correctly. History and Nature repeat themselves in every cycle of time; therefore these forces and potentialities are natural to the sign through which the Sun manifests. We can go backward or forward through the Sun's Zodiac and read correctly the history of the hoary past, as well as the present and future, by bearing in mind the sign and cycle in manifestation at any given period. When the proper time arrives, a work will be given to the world to prove to mankind the law of cycles.

God is present in all ages and races, manifesting His love and wisdom throughout infinite creations, and that He records, in His own way, the most detailed record of any event which takes place, thus giving to man a complete history of His works and will, for man's enlightenment, so that he, too, may cooperate intelligently with his God in every way that intelligence wills to manifest. Prehistoric history is not blotted out from Nature's laboratory. The Astral Book of Karmic evolution will one day reveal its hidden treasures to a waiting world in such a manner as to surprise and enlighten mankind as

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the recording angels give up those gems of truth they have so jealously guarded for untold cycles of time, simply because the time was not ripe for its divulgence.

There is a time for everything, and when that time arrives all past history of our planet's evolution will be written in an intelligent manner for the illumination and education of man as the masterpiece of the Living God. In this way man will worship Deity and perfect his God-nature, even to Angel-hood.

If this volume of "The Light of Egypt" meets with the same appreciation that was accorded the first volume, which has passed through four editions, and is still growing in favor every day (besides being translated into the French), the author will feel that his efforts have not been wasted, and he trusts the race will have been made better for having read his writings.

As this is his posthumous contribution to the world, the author wishes, in this connection, to pay a debt of gratitude and grateful recognition to his esteemed pupil and friend, Dr. Henry Wagner, who has so generously published nearly all of his writings. Without his aid and assistance we would not have been able, of ourselves, to have given these works to the world. Therefore, honor to whom honor is due.

Mrs. Belle M. Wagner has been chosen by the Masters as my spiritual successor and representative of the Hermetic Brotherhood of Luxor, and thus perpetuate the chain of outward connection between those in the realm of the higher life with those upon the outward plane.

She is our choice, and a most worthy one to take my place.

I make this statement in this connection for the benefit of my pupils and Hermetic students generally, as I am being personated by frauds and imposters, claiming to be Zanoni. Verbam sap.

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It is my request that a fac-simile of my signature and symbol accompany this preface.

Dictated by the author from the subjective plane of life (to which he ascended several years ago) through the law of mental transfer, well known to all Occultists, he is enabled again to speak with those who are still upon the objective plane of life.

The additions found in this volume, not in the original manuscripts, have been supplied in this manner. The two planes of life, the objective and subjective, are scientific facts, no longer disputed by well-informed minds, and the exchange of thought will become almost universal among educated minds during the present cycle. Hence great progress will come to the Earth during the next 2,160 years, while the Sun manifests his glorious influence through the symbol of the Man.

Thanking each and all who have aided in any way to give my writings to the world, I am, in love and fraternal greetings, ever yours. Omnia Vincit Veritas.

INTRODUCTION TO VOL. II

What study is more sublime, inspiring and profitable, in the highest sense, than the "language of the stars"—those silent monitors of the midnight sky, who reveal HIS WILL as secondary causes in the administration of universal law? The science of the stars is the Divine parent of all science.

The more earnest our study, the more recondite our research and thorough our investigation of the "Science of the Stars," the more fully shall we realize the truth of the teacher's words: "Astrology is the key that opens the door to all occult knowledge." It is the key that unlocks the mysteries of man's being; his why, whence, whither. Within the temple of Urania lies concealed the mystery of life. The indices are there, written by the finger of the Infinite in the heavens above.

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It is our privilege to make this language our own, and it should be the earnest work of every true student of Nature to acquire a right understanding and correct interpretation of these Divine symbols. And, as thorough students of any language seek out the derivation of words and expressions, search for the root, or stem word, and its origin, so should the student of astrology, by sincere desire and earnest study, seek to know the origin and root of these starry words and complex expressions of the "language of the stars."

The Sun, Moon and five planets[*] of our solar system are to us symbols of the reflected and refracted rays of the triune attributes of the great Central, Spiritual Sun: Life, Light and Love, analogous to the three primary colors in Nature, which become still further refracted into four secondary or complementary colors, rays or attributes, the seven constituting the active principles of Nature, the seven rays of the solar spectrum, the seven notes of a perfect musical scale, there being throughout a perfect correspondence, and all are but different modes of vibration or activities of the Supreme Intelligence.

[*] Uranus and Neptune belonging to a higher octave.

And, as we know, the seven rays of color reflect an almost infinite variety of tints, that, octave upon octave, are built upon the seven natural tones in music, so, also, are these seven active principles divided and subdivided into innumerable forms, qualities and manifestations of the first trinity—Life, Light, Love, life being the manifestation of the second two, love and wisdom, which in turn are the dual expressions of the "One."

Upon the knowledge of these Divine truths Pythagoras built the theory of the "music of the spheres." Let us pause and listen to this celestial music.

Suns and their systems of planets sound forth the deep bass tones and rich tenor, while angelic races take the silvery treble of the Divine melody, octave upon octave, by more

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and ever more ethereal system upon system, to the very throne of Deity—the Infinite, Eternal source of Light, Life and Love. Let us learn, through the knowledge of the stars, to attune our souls to vibrate to the Divine harmony, so that we may take our places in the celestial choir and blend our voices with those of the celestial singers, chanting the Divine anthem: "We Praise Thee, O God!"

To resume. If we would gain a correct knowledge of astral science we should study astrology in its universal application, side by side with its more intricate phase and the details, as manifested upon the individual man and his material destiny.

Let us digress for a moment. The intellectual minds, the material scientists, who cavil at the "science of the stars," declaring it to be mere fortune-telling, consequently false, do but air their ignorance of this most profound subject, not knowing that it embraces and contains all sciences, all religions, that have ever been or ever will be, comprises all history of every age, of races, empires and nations; that it is the only true chronology, and marks the destiny, not only of personal man on every plane, but of the human family as a whole. All mythologies find their explanation in this starry language, and every religion is founded upon the movements of our solar system. The rise and fall of empires and races of men are written in its pages.

To master as far as we are capable, and our limited space of life here will permit, we must pursue the study in its broad sense, as already stated, in the external application of the starry influx and upon the interior planes of action from God to the mineral, the mineral to man; aye, and man to the angel, finding in every section a complete and perfect correspondence.

To master the alphabet should be the first step, whose vowels, diphthongs and consonants are the planets and shining Zodiac. It is very essential to clearly comprehend the action and reaction of the planets upon the human organism, as an integral part of the universal organism; ever remembering that the starry vowels, in combination with

the consonants, or Zodiac, form the infinite expressions comprising the language of the starry heavens in their threefold manifestation upon the external planes of life; while the radiant constellations are the ideas which find expression through this language, which is likewise a science, accurate in its mathematical construction and perfect in geometric proportion.

The student should ever bear in mind that astrology, like every other science, is progressive. The underlying principles are always the same. These are like the "laws of the Medes and Persians," but the plane of action is constantly changing.

It is a well-established and indisputable truth that from the Sun, the solar center of our system, is derived all force, every power and variety of phenomena that manifests itself upon Mother Earth. Therefore, when we remember that the solar parent passes through one sign of his celestial Zodiac in 2,160 years, a twelfth part of his orbit of 25,920 years, we see that from each sign in turn he (the Sun) rays forth an influx peculiar to that special sign; and, as there are no two signs alike in nature or quality, hence the passage of the Sun from one sign into another causes a change of polarity in planetary action, which can be fully demonstrated and conclusively proven. It follows, as a natural sequence, that the rules formulated and taught by astrologers in reference to the plane of planetary influence in one sub-cycle will not hold good in the next. To illustrate: In the year 1881 the Sun passed from the sign Pisces into Aquarius, thus beginning a new cycle of solar force. The human race has entered upon a cycle in every respect differing in nature and action from the past cycle of 2,160 years. The sign Aquarius is masculine, electric, positive. It is intellectual in character, scientific, philosophic, artistic, intuitive and metaphysical. It is the sign of the Man. The truths of the past are becoming etherealized. Our solar parent has scarcely crossed the threshold of the sign Aquarius, and already we observe in many directions the activities of the peculiar influx. True, it is but the first flush of the dawn of a new era, the harbinger of a glorious day to our race. In the light of this truth, ponder well on the nature of the influx radiating from the

solar center, each orb of his shining family absorbing a different ray, or attribute, of solar energy, corresponding to its own peculiar nature. The Earth, in her annual passage about her solar parent, receives the harmonious or discordant vibrations of this astral influx according to the many angles she forms to the various planets.

We see, then, that the Earth is enveloped in an atmosphere, or zone, of occult force we recognize as humane, mental, positive, etc., acting and reacting upon the human family through the laws of vibration in strict and exact ratio to its interior capacity to receive and ability to externalize upon the material plane of being. The results, as far as this stage of existence goes, will be manifest as man vibrates harmoniously or otherwise to the stellar cause.

The present sub-cycle producing an entirely different influence to that of the past cycle, whose force was watery, magnetic and feminine, causes a warring of elements, confusion and uncertainty, until the old are displaced by the new conditions. We should learn from these facts that it is folly to brand as false and condemn as worthless the rules and formulas, and even religious thought, of the past when we find upon careful investigation and crucial tests their inadequacy to account for present conditions. They were true in their cycle, and applied to past conditions and states of mental development. But in this new era, upon whose threshold we now stand, the vibrations become more intense. Man's whole nature is being tuned to a higher key. We must not forget that these cycles apply to the race in their effect, and to the individual only as an integral part of the whole. To illustrate. The sign Aquarius is an electrical, positive, masculine influence, and will consequently manifest its chief activities upon the masculine qualities of the human soul; and to-day we have evidence of this in the gradual enfranchisement of woman, arousing the positive attributes of her nature in demanding equal rights with her brother, man, in the political arena, as she has already done in the educational field. The masculine portion of the race is becoming more aggressive, mentally, asserting greater individuality, independent thought and action.

The intellect of the race is being directed, however slowly, into scientific channels, while the human soul is slowly awakening to a sense of a deathless immortality and a desire for spiritual truth. It is slowly but surely shaking off the yoke of an effete priesthood and the fetters of superstition and tyranny.

Intelligent man talks of the new scientific and intellectual era that has dawned upon the world; of the necessity for a new religious system, based upon scientific truths, which can be demonstrated, combined with the pure spiritual essence found in all systems of religion; a religion with more spirituality and less theology; a broader charity and less dogma, and deeper love for God and man, its only creed.

We must now consider the astral influence of the cycle upon the physical organism of mankind, and particularly of the Western races, who are moving upon the upward arc of the cycle. It is quite evident that a radical change must take place in the physical form and constitution with the influx of more intellectual, ethereal and spiritual vibrations. The organism must become more refined and compact, a greater degree of sensitiveness be attained, with a highly nervous system. The forerunner of this superior organism is now apparent in the numerous schools of physical culture and gymnasiums throughout the land, the many articles and pamphlets on deep, rythmic breathing disseminated among the people, and last, but not least, the various schools of mental healing, etc. The masses look on and wonder, while they exclaim: "What marvelous changes are coming to the world!" but are utterly ignorant of the cause of the mysterious change. To the student of Hermetic Philosophy there is no mystery involved. He knows the cause, and confidently watches for the effect.

Each one must seek to comprehend for himself, according to the light he may receive, basing his premises upon the TRUE PRINCIPLES of astrology, carefully noting the triune aspect of planetary influence upon humanity, ever remembering that the Sun and Moon are the great factors in human destiny, and that his premises and conclusions

must occupy the same plane. Having acquired a knowledge of the science in its application to the individual, take the broader field, or universal aspect, as it applies to human races, and you will find the rise and fall of nations, empires and families marked upon the celestial dial, and in perfect accord with the influence of the Sun and planets upon Mother Earth, in her various movements. And last, but most important, seek with an earnest desire for truth to learn the relation of those glittering constellations of the shining Zodiac to the human soul and their influence in shaping its eternal destiny. This will reveal the whole of involution and evolution in a general sense.

A faithful, earnest and devout study of the "Science of the Starry Heavens" will lead us on to other planes of thought, relating to still more interior realms of knowledge than we perhaps now dream of, and, in the words of the master: "A true knowledge of the stars will include a true knowledge of the soul," and we shall realize "the mystical link that binds the soul to the stars." MINNIE HIGGIN.

CHAPTER 1

THE ZODIAC

To the ordinary astrologer the Zodiac is simply a band of space, eighteen degrees wide, in the heavens, the center of which marks out the pathway of the Sun during the space of one year of 365 days, etc.

The twelve signs are to him simply thirty degrees of the space (12 times 30 equal 360), bearing the names of the constellations which once occupied them. Nay, he, as a rule, still imagines in some sense that the signs (constellations) are still there, and that the power and potency of the twelve signs is derived from the stars which occupy the Zodiacal band of the skies.

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But this is not so, as any ordinary astronomer well knows. This single fact, i.e., the gradual shifting of the constellations, the DISPLACEMENT, let us say, of the starry influx from one sign to another without any ALLOWANCE being made in the astrologer's rules for any such change, has been one of the greatest obstructions to the popular spread of the art among EDUCATED MINDS. Argues the scientist: The "fiery influence of Aries," if depending upon the stars of that constellation, ought now to be shedding forth their caloric from the sign Pisces, and Aries ought to be lumbering along with the earthy Taurine nature. So, also, the lords of these signs ought to be changed, but that they are not can be proved by the fact that our earliest records of that dim, historic past show, equally as well as your latest "text-book," that Mars is the lord of Aries—a fiery planet in a fiery sign; but astrologers still say that Pisces is watery and Aries fiery, WHICH IS NOT THE CASE, IF THE STARS HAVE ANY INFLUENCE AT ALL. It is not necessary," say these logical thinkers, "to learn your abstruse science if we can demonstrate that the very basis upon which your conclusions rest is in every sense fundamentally false." The scientific facts of the case are as follows: The influence of the twelve signs, as described by astrologers, is a delusion, because in all ages they are reported the same; whereas WE KNOW that every 2,160 years each sign retrogrades to the extent of thirty degrees, and, as your art does not make allowance for this, it is false. For, if the influence of the twelve signs does not emanate from the stars occupying the space of those signs, it must emanate from nothing—a doctrine well suited, no doubt, to musty old sages of your superstitious Chaldea, but quite out of court in our progressive age—the last decade of our cultured and scientific nineteenth century.

So far, so good. And so the world rolls along its bright pathway in the heavens, little heeding the logical conclusions of an exact science. But to an initiate of those inner principles of our planet's constitution all these mental conflicts have a meaning and a purpose within Nature's divine economy; for it is neither wise nor expedient that the

masses, with popular science in the lead, should grasp the truths which Mother Nature reserves ALONE for her own devoted priests.

The shining Zodiac, with its myriad constellations and its perfect galaxy of starry systems, derives its subtle influence, as impressed astrologically upon the human constitution, from the solar center of our solar system, NOT FROM THE STARS which occupy the twelve mansions of space. Aries, the fiery, and PISCES, the watery, ARE ALWAYS THERE, and, instead of its being an argument against astrology, it is one of its grandest truths that, in all ages and in all times, Aries, the first sign of the Zodiac has been found EVER THE SAME, equally as well as Pisces the last.

In order to convey our meaning, let us digress for a moment and bring forth a fitting illustration. The condition of our atmosphere and the surrounding objects—vegetation, etc.—have a peculiar condition and a magnetism wholly their own when surveyed exactly at sunrise. There is a freshness and peculiar sense of buoyancy not visible at any other time. If this state could be registered by any instrument and compared with any other set periods during the day, it would offer a remarkable contrast. Two hours later there is a very different influence, and at noon there is a wonderful contrast. The same may be said of sunset, and again at midnight; and, lastly, note the difference two hours before dawn. This is the coolest period of the whole twenty-four hours. These are facts, and yet our hearts are all beating to the same life-flow, and the Earth is no farther away from the parent Sun; and yet it is the angle at which we, THE INHABITANTS, receive this Sun's light that makes all the difference between dawn and sunset, noon and midnight.

When to these facts it is further added that it is sunrise, noon, sunset and midnight at the same instant, all the time, to some of the various, different portions of the globe, it demonstrates most conclusively that the Earth itself is enveloped, so to say, in a complete circle of conditions very similar to the twelve signs of the celestial Zodiac.

If we apply the foregoing illustration to the twelve signs of the Zodiac, we shall see a perfect analogy. We shall find that when the Sun reaches the celestial equator, so that it is equal day and equal night on the Earth, that he is on the line of the celestial horizon; it is cosmic sunrise. Hence Aries, the fiery Azoth, begins his active influx, and extends for thirty degrees, equal to two hours of the natural day.

It is the fiery red streams of awakening life that we all manifest at sunrise; then comes a change of magnetic polarity after the first fiery flush of cosmic life; the gleeful chattering of the birds and the cackling of the poultry. A reaction is noted; all things before active become restful and quiet.

So it is with vegetation, so it is with infant life, and so it is with cosmic conditions.

This corresponds with the sign Taurus. It is the solar influx, thirty degrees removed from his point of equilibrium toward the North. As this sign represents the powers of absorption, we see that at this period vegetable and animal life is quietly absorbing, for its own use, the fiery streams of solar life.

Again we view the activity of solar influx from a different angle and change of polarity, and all things become active, It is executive force. This corresponds to the sign Gemini. It is the solar influx, sixty degrees removed from his point of equilibrium. Then comes another change of magnetic polarity. It is rest from labor; it is noon. This corresponds to Cancer. The analogy is perfect. It is the solar influx, ninety degrees removed from his point of equilibrium toward the North, and the highest point in the arc of his apparent journey and of cosmic life. It is the equilibrium of life forces.

Again the fiery influx begins its activity, and, as the hottest part of the day is about two hours after noon, or middle of the day, so is solar influx most potent at this point in the Zodiac.

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This corresponds to the sign Leo. It is the solar influx, removed 120 degrees from his point of equilibrium and thirty degrees toward the South. And so on month after month, until the last one, Pisces, which well corresponds to the watery skies of February and the lifeless period two hours before dawn of a new day upon the Earth, a new year to man and a new cycle in the starry heavens. The Zodiac, then, as it applies to the human constitution and the science of astrology, has its foundation in the Sun, the center and source of life to the planet; and the twelve signs are the twelve great spaces of our Earth's annual orbit about her solar parent, each one typical of its month, and each month typical of its corresponding action upon our Earthy conditions.

As each sunrise is different in its aspects, so are no two signs of the Zodiac alike. The sunrise on the first of March is wholly different from the sunrise upon the first of May. So is the beginning and ending of each sign, and the beginning and ending of each natural day, peculiar unto itself.

When we reflect upon the inner laws of this action and interaction, we come nearer and nearer to the one great occult fact, viz.: THE DIVINE ONENESS OF LIFE.

We find a perfect analogy between the destiny, the life, and expression of life on the Earth, and the life and material destiny of embodied man. He, too, has his sunrise, the beginning of a new day of life, the seedtime, the flowering season, when life wears a roseate hue; the ripening fruits of experience, his harvest-time—it may be tares or golden grain; his gradual decay, the ebbing of the life forces and the icy winter of death; his gentle zephyrs and destructive hurricanes, floods and tempests, periods of drought and plenty. Within his triune constitution there are spring tides and low tides of physical, intellectual and spiritual forces. Man also makes the annual journey about the solar center, when, at the beginning of each new year to him, the life forces of his soul are renewed, regalvanized, so to say, according to the magnetic polarity of his constitution.

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And so, every form of life has its Zodiac, its orbit of life and destiny. It may be infinitesimal, or vast beyond conception, each in its own peculiar plane. So we see that, the whole visible universe is one vast organism, the medium of expression for the invisible, real universe— the soul and God, the great central Sun, the eternal center of all life, binding the whole into unity—ONE LIFE.

The celestial signs of the shining Zodiac have no existence to us apart from the graceful and unwearying motion of our Mother Earth. She alone makes our seasons, years and destiny; and she alone, by her motion about the Sun, determines the thrones and mansions of the planetary powers.

The astrological Zodiac of a Saturn or a Mars cannot be like ours. Their years and seasons are peculiar to themselves and their material conditions; hence the twelve constellations have no existence as objective facts of concrete formation or cosmic potentiality. No! But as unalterable symbols of occult truth, the starry pictures of the shining constellations have an eternal verity. They pertain to the living realities of the human soul and its varied experience.

What the mysteries are, and what connection they have with the twelve constellations, will form the subject of our next chapter.

CHAPTER II

THE CONSTELLATIONS

The twelve great constellations of the zodiacal belt which forms the Earth's orbit and the Sun's shining pathway around the celestial universe have been considered as mere imaginary figures, or emblems, invented by an early, primitive people to distinguish the monthly progress of the Sun and mark out, in a convenient manner, the twelve great divisions, or spaces, of the solar year. To this end, IT IS THOUGHT, the various star

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groups, termed constellations, were fancifully imagined to represent the various physical aspects of the month, under, or into, which they were consecrated by the Sun's passage during the annual journey, so that, in some sense, the, twelve signs or constellations were symbolical, not only of the seasons, but also of the labors of the year.

That such a system seems perfectly natural to the learned mythologist, and that granting the ancients so much is a very great concession toward this CHILDISH KNOWLEDGE is, of course, quite excusable when we are constantly told, or reminded, that actual science—that is to say, "EXACT SCIENCE," does not date backward more than a couple of centuries at most.

Even the modern astrologer, much as be descants upon the influence of the twelve signs, has but little, if any, real knowledge of this matter above and beyond the purely physical symbolism above mentioned. And perhaps it is as well that such a benighted condition prevails, and that the Divine, heavenly goddess is unsought and comparatively unknown. The celestial Urania, at least, in such isolation remains pure and undefiled. She is free from the desecrating influence of polluted minds.

Such, in brief outline, is the general conception of mankind regarding the shining constellations that bedeck, like fiery jewels, their Maker's crown, and illumine with their celestial splendor the wondrous canopy of our midnight skies. Is there no more than a symbol of rural work in the bright radiance of the starry Andromeda, the harbinger of gentle spring? Nothing, think you, but the fruit harvest and the vintage is in the fiery, flushing luster of Antares and the ominous Scorpion? Are men so spiritually blind that they can perceive nothing but the symbol of maturing vegetation and the long summer's day in the glorious splendor of Castor and his starry mate and brother, Pollux? It would, indeed, seem so, so dead is the heart and callous the spiritual understanding of our own benighted day. To the initiate of Urania's mysteries, however, these dead,

symbolic pictures become endowed with life; these emblems of rural labor or rustic art transform themselves from the hard, chrysolitic shell and expand into the fully developed spiritual flowers of spiritual entities, revealing in their bright, radiating lines the awful mystery of the soul's genesis, its evolution and eternal progressive destiny amid the mighty, inconceivable creations yet to come; pointing out each step and cycle in the soul's involution from its differentiation as a pure spiritual entity, a ray of Divine intelligence, to the crystallization of its spiritual forces in the realms of matter and its evolution of progressive life; the same eternal symbols of the springtime, the glorious summer, the autumn and winter of its eternal being.

In making this attempt, probably the very first within the era, to convey in plain and undisguised terms the interior mysteries of the twelve constellations, the reader and student is advised to ponder deeply upon the outlines presented. The subject is too vast to present in one or two chapters. Therefore we hope that this revelation may incite the student to further research. The real significance, the true, spiritual importance of such mysteries, can only be realized and fully appreciated after prolonged meditation and careful study.

With this brief digression, which we consider needed advice, we will resume our task, and attempt to usher our student into the weird labyrinth of Solomon's starry temple—"the house not made with hands, eternal in the heavens."

1. Aries

"First Aries, in his golden wool."

This constellation represents the first Divine idea, the "word" of the Kabbalist, and the first active manifestation of the glorious En Soph. In other words, it is MIND IN ACTION, the first pulsation of Deity in the dual aspects of "Lord and Creator." To the human soul it is, and always typifies, the unknown, invisible power which we term

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INTELLIGENCE; THAT WHICH KNOWS, and gives unto each Deific atom of life that distinguishing, universal, yet deathless force which not only constitutes its spiritual identity and physical individuality, but enables it to pronounce, in the presence of its Creator, those mystic words: "I am that I am." In other words, this beautiful constellation symbolizes the first pulsation of that ray of pure intelligence which constitutes the Divine Ego of the human soul. It is the force that impels ever onward the life atom in its evolutionary progress, and reveals to us the beginning, or first manifestation, of the Divine Ego as an active, self-existing atom of Infinite spirit, within angelic spheres.

Seeing the actual, spiritual reality symbolized in Aries, how easy it is to note its full significance upon the external plane when refracted and reflected into the planes below through the complex action of the human organism, conveying the same radical influx in the first astrological month and the first sign of the Zodiac. We can read a perfect parallel in the astral influx upon the human body, as set forth in the "Light of Egypt," vol. I, which says Aries symbolizes the sacrifice and represents the springtime, the beginning of a new year. The first action of pure intelligence brought forth the first expression of form, and led to the sacrifice of its angelic state, and, having gained the victory over the lower realms of matter, once more the springtime of a new life, with the promise of life, light and love.

The sign Aries represents the thinking powers of humanity; in short, the active, intellectual being, the lord of material creation—Man; and in its cosmic relations, as shown under "The Occult Application of the Twelve Signs" (vol. I), we find the same perfect analogy.

II. Taurus

"He (Aries) turns and wonders at the mighty Bull (Taurus)."

The second constellation of the shining twelve represents the first reaction of spiritual conception. In other words, it is the mind's attention to its own ideas. In the Kabbalah it represents that peculiar state of executive force whereof it is symbolically said: "And the Lord saw that it was good," after each act of creation.

When intelligence first manifests itself form is a matter of necessity, and, as no form can possibly exist without matter, so Taurus is the first emanation of matter in its most etherealized state. Hence it is feminine, Venus the ruler thereof, and it represents the first pure form of the human soul, as it existed in its bright paradise within the angelic spheres of its parents, and reveals to us the first surprise of intelligence in embryo, the first sensation of consciousness, so to say—conscious of its Divine selfhood. Hence "He (the male spirit of pure fire, Aries), glorious in his golden (solar) wool, turns (expressing reaction) and wonders at the mighty bull (or material form)." Thus the first idea of pure intelligence in embryo, the result of action in Aries, becomes objective to its consciousness and is surprised at its own conception. It is the first sensation of pure, Divine love within angelic realms, and it (the male spirit of pure fire) sees that it is good.

Bringing this spiritual reality within our conception, and comparing it with its reflected astrological influx, what a beautiful harmony we find, and yet so simple that verily we cannot refrain from once more quoting our old-time, worn, yet, nevertheless, golden law: "AS IT IS ABOVE, SO IT IS BELOW; AS ON THE EARTH, SO IN THE SKY." Reflecting that Taurus is an Earthy sign, and a symbol of servitude, we see that matter is ever the servant of spirit, a necessary means for the manifestation of intelligence, again recognized in the fecundating forces of this astrological sign on every plane of its action. And it is ruled by Venus, the love element in Nature, her sympathies ever finding expression in this beautiful sign. What can be clearer, more understandable, than, that the involved principles and Deific attributes, as represented by the shining constellations, when refracted through the human organism, so complex

in its constitution, reflects qualities which are the external and parallel expression of the subjective principles, and, further, that form is absolutely necessary for the manifestation of intelligence?

III. Gemini

"He (Taurus) bending lies with threatening bead, and calls the Twins (Gemini) to rise. They clasp for fear and mutually embrace."

This bright constellation (Castor and Pollux), Gemini, is spiritually representative of the second spiritual action. Hence it is, of course, a masculine sign and positive. We have witnessed act I of the soul's drama, and, as some have said, tragedy, and in this, the third of the shining twelve, we find the opening scene of act II, viz: The evolution of the twin souls, or, more correctly, the differentiation of the Divine soul into its two natural component parts—male and female.

Here we approach one of the most arcane secrets within the wide scope of Occult philosophy, hence must be exact, and at the same time clear, in our statements. Note, then, that after the male spirit of pure, ethereal, divine fire (Aries) bad conceived the first idea, and Taurus, the material envelope, had given that idea objective existence to its (the Ego's) consciousness, we find SENSATION AS THE RESULT. No sooner sensation than aspiration; i.e., longing. This closes the action and the reaction.

Ever, in obedience to the unsatisfied wants of an immortal soul Nature immediately responds. Hence "He bending lies with threatening head, (that is demanding)," and calls the twins (the twin souls) to rise (to appear or evolve forth)," and as a first rude shock caused by their separation, or, rather, by their separate existence as two distinct, yet mutually dependent, forces, we have the context.

"They clasp for fear and mutually embrace."

This most impressive scene in the soul's drama is one of profound interest and sublime beauty.

In the Kabbalah we find the same parallel, wherein it is stated: "And so God created man in His own image (the action of Aries and Taurus); in His own image (mind) created He him, male and female created He them." In other words, Aries, Taurus and Gemini are thus spoken of in pure allegory.

The mundane Bible of the Jews, like everything else esteemed sacred, finds its original and perfect expression in the great Astral Bible of the skies.

To the average student the evolution of the Twin Souls is a profound mystery, embracing, as it does, the whole of involution and evolution, seeing that this beautiful constellation represents to us the first recognition, or consciousness, of the Divine Ego of its dual forces, sensation and aspiration, called forth by the action of Aries and Taurus. How beautifully has the poet expressed this first pulsation of Divine love: "They clasp for fear," etc. Evolved by the Divine will of pure intelligence, they must ever remain as separate, yet mutually dependent, forces, positive and negative, male and female, upon whose action and reaction rest the perfect evolvement of the powers and possibilities of the One.

In order to clearly grasp the whole of these ramifications, we again invite our student's careful attention to the same sign, Gemini, in its astrological aspect, as it is representatively expressed by refraction upon the human organism. We find that this sign (the representative of the constellation always) signifies the union of reason with intuition, and that it governs the arms, hands and executive forces of man.

Surely, as we reflect upon the almost marvelous inter-relationship between things spiritual and things temporal, we must conclude, with the man Jesus, that "They have eyes but they see not, and ears, but alas they hear not."

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If it were not so man would, indeed, by virtue of the latent forces within him, take the kingdom of Heaven by storm and reign supreme as enthroned king of all material forms. Man, in his blindness, has relegated intuition to obscurity; has neglected the cunning of the left hand and debauched the pure love of the divine state. Consequently, the executive forces within him are unbalanced, thus rendering him the slave of material forms, instead of being their lawful sovereign. Therefore, not until, with clean hands and pure heart, he restores intuition to her throne, united with reason, can he hope to COMPREHEND the reality of this arcane mystery of the twin souls, Gemini.

IV. Cancer

"And next the Twins with an unsteady pace
Bright Cancer rolls."

In this beautiful constellation we witness the reaction of Gemini, the closing scene in act II. Hence it is, of course, a feminine force we are observing. In other words, it is that period (or rather one of them) wherein the Kabbalah expresses the reaction of the En Soph, via his Creators, as "And behold the Lord saw everything that He had made, and behold it was very good."

Just so Cancer, spiritually interpreted, means equalizing, hence HARMONY, which is indeed very good as contradistinguished from chaos.

To the human soul Cancer is the period of exalted rest. It is the highest point in the arc of the Divine Soul's Angelic Cycle. From this glorious, but subjective, summit or altitude in the realm of spirit it must descend.

Restless energy and the still unsatisfied longings of its own immortal nature are the forces that bring such evolution about. Having evolved the dual forces of its divine nature, the Ego sees that it is good and rests from its labor. But as this exalted state is

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purely subjective, and ideal, it must of necessity, to satisfy the longing for further unfoldment and desire to know, descend into material realms and conditions. From this point begins the soul's involution downward, until the lowest point in the arc is reached, viz., Capricorn.

Refer now to the sign Cancer, and carefully study out the parallel upon its astrological planes and also under its Occult aspects, as given forth in the "Light of Egypt," Vol. I, where we read: "Cancer rules the respiratory and digestive functions of humanity, and governs the reflective organs of the brain." Note the parallel. Within subjective realms the Divine soul has inspired and assimilated all that is possible to that angelic state, and knows a period of blissful rest. But the longings of its immortal nature urge on the soul. So we see that the sign Cancer symbolizes tenacity to life; to live we must breathe and eat and assimilate upon every plane of our being. It necessarily follows that, the mentality expressed by Cancer must be susceptible to inspirational currents; to inspire is to indraw. In its application, we find that this sign symbolizes love. How beautiful the harmony and contrast of the constellation and its astrological representative.

V. Leo

"Then Leo shakes his mane."

Herein is typified the third grand spiritual action which, as we find throughout Nature, travel in pairs; hence Leo is a positive, masculine constellation.

Having attained the highest point in the super-celestial states of subjective, embryonic existence; having evolved sensation and aspiration; now, inspired by a desire for immortality, the DUAL SOUL of the Divine Ego is once more impelled forward; but, as all evolution works in spirals, it cannot ascend higher without first apparently descending lower; so ever onward in its eternal march. This beautiful constellation

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symbolizes the first action on the downward portion of the are. It is the affinities of the heart, so to say, working from within to without.

Matter, in its more etherealized form, begins to assert its sway. The allegorical serpent of Eden is working upon the feminine portion, symbolized by the heart, and, like a magnetic tractor, the soul's affinities are drawn downward, and, as if in defiance of all responsibilities, consequences, and Karma, the soul, lion-like, "shakes his mane in the imperiousness of deathless courage."

As we read these weird allegories, written by Deity in the starry vaults of heaven, the interested soul bows in reverence and awe before that almighty power we term Providence, and the profane call God.

No man has altered these pure records of divinity; no finger has interpolated one single line. They are as beautifully clear to the soul now as they were in the very dawn of Nature's awful creation.

To the Initiate into Urania's mysteries it is unnecessary to draw a parallel between the constellation and its astrological sign. They are too clear, magnificent and impressive to escape notice. To the majority of students the resembance may not be so apparent, hence, for their benefit, we will point out a few aspects of this interesting parallel.

We read that the sign Leo is the "solar Lion of the mysteries, that, ripens with his own internal heat the fruits brought forth from the Earth by the moisture of Isis (the soul)." Just so, the Divine Ego, by its eternal energy and strength, the pure fire of intelligence, externalizes through material forms the principles involved in the downward portion of the arc, as qualities and attributes of the soul (reflected in the physical man as traits and qualities). Again we are told, "this sign reveals to us the ancient sacrifice and the laws of its compensation." In the imperiousness of a deathless courage, the soul defies all consequences and responsibilities. Surely, this is the supreme sacrifice, to leave its pure,

Edenic state to gain knowledge, to evolve its latent forces. And from this lion of the Tribe of Judah, is born that Divine love and sympathy which ultimately redeems and purifies the soul and saves it from death in matter. The laws of its compensation are fulfilled in the prefected man.

In its intellectual aspect, we learn that the mental forces of those dominated by this sign are ever striving to attain unto some higher state. Their ideas are grand, compared with the nature of the constellation, and all that it implies. The reflection is clear, natural and beautiful. When we reflect upon this awful period in the involution of the dual souls of the Divine Ego, as symbolized by the constellation, and the grand truths represented by the astrological sign when refracted through the human organism, the reason for Leo being named the Royal Sign becomes quite plain.

VI. Virgo

"And following Virgo calms his rage again."

Beautifully expressive are these lines to those who read their mystic import aright. Virgo is the reaction of the leonine force, and is, consequently, a feminine symbol.

Action and reaction are the eternal laws upon which the cosmos is founded. They constitute the inseparable affinities, attraction and repulsion, of everything within the realm of manifested being. In this mystic constellation, we see the first ideas of maternal instinct arise. This is a necessary result of the impulsive action of the heart in Leo—the reaction from a state of imperious, defiance. The heat of rage or energy and deathless courage results in the IDEAS of something to be encountered, overcome, and of self-preservation. The dual soul descends still another volve in the spiral of its celestial journey toward crystallized forms.

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Virgo, the Virgin of the skies, and eternal symbol of that Divine, immaculate conception, shows wherein these forces lie. Here is conceived, in a pure, holy sense, the first instinct of love within the dual soul. It represents that awful period in the Biblical Garden of Eden, wherein the VIRGIN WIFE stands before the tree of knowledge, of good and evil, where she is fascinated by the allurements of matter and is unconsciously becoming enveloped in the coils of the serpent. In other words, after the cosmic force had SHAKEN ITS MANE in defiance of material forces, it is the reaction of his subjective half which sees HOW GOOD material things are; or, in other words, "and following Virgo calms his rage again." The masculine half, or positive force of the soul, yields to temptation and is soothed by the alluring prospects.

It will be noticed in this connection that pity, reflection, and compassion, are the peculiar actions of the sign Virgo in the Zodiac (not the constellation), and that astrologically it governs the bowels. This symbolism is really very beautiful when closely compared and studied. That immaculate conception of pure love of the soul for its other half, upon the astrological plane, becomes refracted and reacts as compassion and pity. Again, the soul, within subjective realms, sees how good material things are, and its refraction represents the assimilating functions of the human organism. It also reveals to us the significance of the Lord's Supper. At this stage of its journey, the Divine Ego knows for the last time that close communion with the twin soul before the crucifixion, the wine typical of the sacrifice, the bread, and the sustaining forces, of its own immortal being.

The intellectual aspect of the sign Virgo forms a perfect analogy to the constellation, and is too evident for further remarks.

VII. Libra

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"Then day and night are weighed in Libra's scales;
Equal awhile, at last the night prevails."

Another volve in the spiral, and we reach the grand climax of the soul's journey, within the spiritual world.

The nature of this constellation was, for ages, concealed from all but Initiates; for the reason that, it contains the most important mysteries connected with the human soul. It is the grand transition are between the spiritual world and the astral world; in other words, between ideal conceptions and elemental forms, between the world of design and the realms of force.

One of the chief mysteries of Libra is, that, it is androgyne, or bisexual, in nature. So far the dual soul has evolved within the realms of spirituality; here it stands, in the celestial balance, between the two, giving way to temptation, takes the forbidden fruit and instantly awakes from its purely spiritual state to become surrounded by the illusions of matter. The struggle of the soul with the attracting forces of matter is very clearly expressed in the line:—

"Equal awhile, at last the night prevails."

In other words, astral and physical darkness bedim the soul's spiritual sight, and, leaving the realms of innocence and bliss, they sink into the vortex of the great astral world.

The celestial state is now forever lost as a realm of angelic innocence. It can only be regained amid trial, sorrow, suffering, and experience, and, when regained, it is as Lord and Master, not as the innocent cherub. But when, having gained or reached the equator of the upward arc of its progress, and, united once more to its missing half, gives expression to that deathless force with which it started from the opposite point, Aries: "I AM THAT I AM;" no longer an embryo, but being within the UNIVERSAL SOUL

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of being. Before closing this symbolic constellation, we must reveal the mystery of its BI-SEXUAL NATURE. In the higher or first portion of the sign it is {}, positive to some extent, and masculine. The soul is still within the Garden of Eden and pure, clad in the raiment of God, and is represented by the Chaldean statues of "The Bearded Venus," or Venus, the Angel of Libra, as a morning star, bright Lucifer. But in the latter half, after the fruit of the tree of knowledge of good and evil (positive and negative, you see) has been partaken of, bright Lucifer falls. The Sun of the Morning, shorn of his glory, becomes the symbol of night, or Vesper, the evening star, and the symbol is thus {}, and the soul loses its heavenly raiment, or spiritual consciousness, and becomes clothed with matter, the symbol of night.

The sign Libra in the Zodiac, in its astrological aspect, is a very external correspondence of all the foregoing.

VIII. Scorpio

"And, longer grown, the heavier scale inclines,
And draws bright Scorpio from the winter signs."

We now behold the gates of Paradise guarded by the FLAMING SWORD which points to the four quarters of the world. This sword is, according to Genesis, "to guard the way of the tree of life," and such, esoterically, it really is.

The soul is no longer dual, but separated into male and female personalities; "and behold they see that they are naked." Stripped of their spiritual raiment, they feel the chill of matter and the lusts of an animal nature. They need clothing, "so God made them coats of skin." Sex is the symbolism herein typified, and the evolution of the animal passions of procreation, of multiplication and evolution. It is the complete entry of the soul into elemental conditions, and the flaming sword guarding the four quarters of the Earth to the way of life are the four great realms of the astral world; the way to

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physical life in concrete forms; and the way to life eternal through the realms of the Sylphs, Gnomes, Undines and Salamanders. They are the basis of all matter, known as Air, Earth, Water and Fire. Here we see that, through the evolution of sex and its accompanying desire for procreation, these blind forces of Nature find their avenue of expression. Spiritual consciousness almost lost, and without reason, the soul becomes the prey, so to say, of these forces of the astral world, which is the realm of design. The soul's creations must be met and vanquished upon the upward arc of the Cycle of Progress. They guard or oppose the way to eternal life. Here the soul, having gained the victory, stripped forever of its earthy raiment and the lusts of the flesh, arrayed once more in its spiritual raiment, purified and sanctified, it will stand once more at the gates of Paradise, where, reunited with its missing half, it will partake of the fruit of the Tree of Life and become as Gods. Astrologically the correspondence is perfect, and so thinly disguised as to need no explanation.

IX. Sagittarius

"Him Centaur follows with an aiming eye,
His bow full-drawn, and ready to let fly."

Deeper and deeper sinks the soul into material forms. The evolution of sex has produced the necessary avenues for the entrance of countless forces, and the soul is now rapidly losing the last vestiges of its spiritual conscience. In other words, Sagittarius symbolizes that state of the soul wherein it is descending to its polarizing point, and is, therefore, the vortex of innumerable opposing forces, seeking expression in different forms.

"It is the bow (strength or force of the soul), FULL-drawn and ready to let fly" its arrows (of energy) in any direction that may afford proper opportunity. Here we see the

expression of that deathless, fiery force, and imperious daring and courage, within more material states; the primal fire reflected from another angle.

But everything is unsettled. It is a masculine force, and restless, and is represented under the allegory of the "Tower of Babel" and the utter dispersion of the people (entities) to the four corners of the Earth, and finally becomes involved in dense matter, and its migrations are at an end on this side of the Cycle of Necessity.

Upon the astrological plane, the zodiacal sign Sagittarius rules the motive forces and the pedestrian instinct, the thighs, or basis of locomotion; hence, we see, even here, a most perfect analogy. This sign symbolizes, also, the governing forces of humanity, which see the necessity of law and order; hence government. In this expression, we find the bow (strength or force) ready to let fly its arrows of energy in any direction the opportunity may afford; when refracted upon the human organism and reflected upon the external plane, these forces manifest as the restless spirit, that ever impels onward, seeking new fields of expression, out of which develops a sense of order, restraining and training, or the governing of self and control of others. When we reflect upon these symbols of starry truths the mind bows in reverence before the wisdom that created them.

X. Capricorn

"Next narrow horns the twisted Caper shows."

The Goat, and in the realms of spirit, the crystallized mineral is the reaction of the former, and shows to us death, inertia and rest; hence Kronos, or Saturn, the symbol of death, is lord of this state and condition. It is the polarizing point of the soul's evolution in matter, and therefore, forms the lowest are in the Cycle of Necessity.

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Herein we behold the soul, imprisoned within the mineral state. The fire of the flint, and the spark in the crystal, are the only avenues of its lonesome expressions. But, as the lowest point, it is also the promise of a higher, and the symbol of a higher state, and the symbol of another spiral in its endless life.

This constellation, as the symbol of inertia and death, is also the symbol of awakening life, and prepares the soul for the more perfect expression of its powers in its forthcoming upward journey. If we pause for a moment and consider the force and power necessary to evolve out of this dark, dense, mineral realm, the foregoing sentence will become clear and forcible. Hitherto, the soul has been slowly drawn down into coils of matter, imprisoned by material forces. It has penetrated the lowest depths, and can go no farther. Rest here, is to gather strength, force. Mark well the difference and parallel between Cancer and Capricorn, opposite points in the arc. Cancer is the symbol of exalted rest within angelic realms; Capricorn the symbol of rest in dense matter. From the former state the soul is impelled forward on its downward journey; from the latter state the soul awakens to the struggle for life on the upward are; and must now give expression to the positive powers of its immortal being, which have become involved in material form; that shall make it the master, and give it the victory over death and material forces. Surely, this is truly the promise of a new day, and higher state of existence.

It will he instructive to study this by a comparison of the zodiacal sign, Capricorn, as set forth in the "Light of Egypt," Vol. 1, wherein we read: "This sign signifies the knees, and represents the first principle in the trinity of locomotion, viz., the joints, bending, pliable, movable." The analogy is perfect. The soul, which has been pliant, bending to material forces, now reverses this action, and bows the knee in awe and reverence to the higher powers of its being. When refracted upon the human organism, we find that the cold, lonesome state, and weary struggle within the mineral realm, becomes love of self, directing its energies to the attainment of selfish ends. What could be more natural?

XI. Aquarius

"And from Aquarius' urn a flood o'erflows."

The soul, released from its crystallized cycle of matter, now rapidly evolves into states, though material, yet entirely different. Its previous arc, from Libra to Capricorn, has been amid inorganic matter. It is now rushing with lightning speed upon its weird, toilsome, upward, journey through purely organic forms, from vegetable to animal; and, as all organic forms have their primary origin in water, so does this celestial urn express the primary conception of this physical state. Further, to more fully express this, Aquarius is typical of man, as prototype of the last grand goal of the soul's future material state—in other words, the last quadrant of the four elements, viz.: Bull, Lion, Eagle, Man.

There is something exceedingly significant in all this, and the more we ponder on this spiritual allegory of the shining constellation, the more we are impressed with the divine wisdom of those early instructors of our race, who thus preserved truth in an incorruptible form.

From this weird, but beautiful constellation, we learn how the soul has progressed, finding innumerable avenues of expression of its latent forces; the manifestation of its powers in the various chemical changes, and development of functions expressed through countless forms, on the lower planes of existence. The sacrifice of its angelic innocence, the imperious defiance and deathless courage, symbolized by Leo, have obtained the victory over the lower kingdoms; which will be incorporated into his vast empire. Yet, unstable as water, it cannot excel; or, in other words, cannot rise to a higher state within this are, of its progressive life.

We find that the astrological expression of this constellation, the sign Aquarius, governs the legs, and is the natural emblem of the changeable, moveable, migratory

forces, of the body, forming a perfect parallel with its interior symbol. There is a great deal contained in this zodiacal sign worthy of deep study and reflection.

XII. Pisces

"Near their loved waves cold Pisces take their seat,
With Aries join, and make the round complete."

Once more a reaction—the last scene of the soul's impersonal drama. The constellation (if Pisces is the symbol of rest and expectation. The soul has now completed the first round, or rung, in the Cycle of Necessity; and its next state is that of incarnated man. It has triumphed over every sphere below, and defied, in turn, every power above, and is now within that sixth state of the embryonic soul-world that transforms all its past knowledge, sorrow, and suffering, into experience; and produces the impersonal man.

It has traveled through constellated states within matter and spirit, and, as a human soul, with reason, intuition, and responsibility, it will, in its next state, become subject to those same powers when reflected from a different plane. The twelve constellations of its soul will manifest a complete rapport with the twelve signs of solar light and power.

With this we close. The mystic sign of this constellation is {}, or completion, a seal and a sign of its past labors.

And, as we have seen, the shining constellations are the soul's progressive history from its genesis, to its appearance within embodied conditions as man; and so, by correspondence, are the twelve solar signs symbols of man and his material destiny. The foundation has been laid, the material and resources are at hand, for his kingdom is exclusive. With his own hands he must build his temple (the symbol of the perfected

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man), each stone accurately measured, cut, polished, and in its proper place, the proportions symmetrical, hence, harmonious; the keystone of whose arch is WILL, its foundation love. This accomplished, be will have completed the second round of the great Cycle of Necessity.

And who, after contemplating the wondrous harmony of this beautiful system, and the complete accord of each part, can refuse to agree with the truly inspired Addison that—

"Ever moving as they shine,
The hand that made us is divine."

CHAPTER III. THE SPIRITUAL INTERPRETATION OF THE TWELVE HOUSES OF THE HOROSCOPE

As a sequel to the foregoing subjects, viz., the Zodiac and constellations, we will add the spiritual interpretation of the twelve houses of an horoscope, which completes the triune expression of these celestial symbols of eternal truths.

In revealing this mystery, we would impress upon the mind of the student that the order of the Zodiac is the reverse of the external, in its spiritual application, to the twelve houses of the horoscope.

As the four cardinal signs, viz., Aries, Cancer, Libra and Capricorn, correspond to the four angles of a natal figure, it is our purpose to explain, first, the symbology of the four angles, or cardinal points; believing the whole revelation will thus become clear and forcible.

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The four angles of the horoscope correspond to the four elements, the four triplicities, and the four cardinal points, or epochs, in the soul's involution from pure spirit to the crystallizing, inert, mineral state.

The first angle is the ascendant, or House of Life. It is the eastern horizon, and symbolized by Aries. Upon the interior, this first angle stands for the birth, or differentiation, of the Divine Ego, as the result of the creative action, or impulse, of the Deific mind.

The Ego rises upon the eastern horizon of celestial states, a glowing, scintillating atom of pure intelligence, an absolute, eternal Ego, rising out of the ocean of Infinite Love.

The South angle, meridian, or Tenth House, pertaining to honor, etc., is symbolized by Cancer; the highest point in the arc of the soul's involution, as a differentiated atom of Deity within angelic spheres.

Having evolved the first dual expression of its (the Ego's) self, the twin souls—Sensation and Aspiration, or Love and Wisdom, the Ego rests awhile, radiant with celestial love and wisdom, and inspiring the Divine breath of life.

Again the restless impulse of the creative purpose arouses the Ego to further action. The culminating point has been reached, and now must begin an apparent downward course toward the western horizon.

The seventh angle, or House of Marriage, etc., is represented by Libra (the Balance), or point of equilibrium; where the two souls are still one, balanced upon the western horizon. The alluring temptations of material illusions draw the souls downward, and, divorced from their celestial state, the radiance of Divine love becomes obscured, until the twilight of consciousness of that former state is lost in the night of material conditions.

This house signifies, also, law, and open enemies, and (Libra) justice. Sex is the law. The antagonism is surely too apparent to require explanation.

The fourth angle, or Nadir, the point opposite the M. C., signifies the frozen North, and is symbolized by Capricorn, the crystallizing point in the soul's involution. It is death, inertia; that is, crystallization of the soul's spiritual forces. It is the lowest point of the are in the monad's downward journey. It is the night, before the awakening of a new day upon a higher plane of existence.

The remaining houses are the lights and shadows that, fill out and complete the picture, upon this, the first round of the Cyclic Ladder.

The Twelfth House, symbolized by Taurus, represents the first expression of form of the human soul. It is matter in the most etherealized state. It is the trail of the serpent; the silent, secret, tenacious, negative principle; that ultimately draws the soul down into the vortices of gross matter and death.

The Eleventh, or House of Friends, whose symbol is Gemini, the Twins, expressive of the first emanation of this sublime relationship, the dual attributes, love and wisdom, closest friends. It is sensation and aspiration, which enable the spirit to attain to the exalted state indicated by the Tenth Mansion.

The Ninth Mansion of the celestial map is the House of Science, Art, Religion, Philosophy, etc., and its symbol is Leo, the Heart, with its emotions, love, and longings, and sympathies. Having evolved the twins, and inspiring the Divine breath of wisdom; glowing with Deific love, the Ego aspires to know; and all the sympathies of the soul are aroused. Dauntless and fearless, defying all opposition and consequences, It (the Ego) is ready to sacrifice this angelic state and explore the boundless Universe in pursuit of knowledge, and goes forth on its long voyage upon the ocean of Infinite, fathomless love and wisdom.

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The Eighth, or House of Death and Legacies, is symbolized by Virgo, the virgin wife, standing before the "Tree of Knowledge of Good and Evil," fascinated by the flattering prospects of greater power and wisdom. Desire and sympathy draw the soul down into realms which lead to death, and the beginning of a heritage of sorrow,

The Sixth, or House of Sickness, Menials, and Sorrow, is symbolized by Scorpio. The fall, from Libra through Scorpio (sex), created the first condition of what we recognize as sickness and affliction. It is evident that this house is related to the elementals of the astral plane, which become the servitors of man.

The Fifth, or House of Children, etc., symbolized by Sagittarius, signifies the offspring of sex (Scorpio), entities sent forth to people the Earth, to take their chances of life, speculating on its future course, fearlessly eager for the struggle, gaining pleasure in its migrations and activities.

The Third House is symbolized by Aquarius. This is the first step of the upward journey, or evolution, from the inert mineral state. The changes are now rapid; the journeys innumerable; through mineral, vegetable, and animal planes, of existence. Here, the Soul Monad brings into actual practice the knowledge gained on its long voyage. The magical powers of the soul are brought into action to effect these changes in form and function, conquering material forces and planes of life, transmuting Nature's elements to its uses and purposes, and writing its history, as it journeys ever onward, step by step.

And further, this house stands in opposition to the Ninth House, symbolized by Leo; longing to expand its (the Ego's) possibilities through trial and suffering; gaining knowledge through bitter experience; yet fearlessly braving all things; guided and sustained by the imperial will of spirit. The recompense promised by that supreme sacrifice has been won in Aquarius—the Man—consecrated now to a higher existence,

baptized in the waters of affliction (experience), ready to be transmuted into actual knowledge. This is Aquarius, and the Third House.

The Second House, signified as Pisces, the House of Wealth, that which has been accumulated on the long and toilsome journey—the wealth of experience, acquired through trials and struggles. And now, with higher, greater possibilities, the soul eagerly awaits the hour when it shall be born again, a conscious, responsible human being, to begin the second round of the Cyclic Ladder; on this second round, to externalize the knowledge gained, to evolve the involved attributes and forces of being,—a creature of will and intellect, to work out its destiny, as the lord of material creation.

Observe, the order of the Zodiac is reversed upon the external human plane. But, Aries is always symbolical of the first angle, and Libra of the seventh, being the point of equilibrium, while the tenth, or South, angle becomes Capricorn and the fourth Cancer. The mission of the soul now is to evolve the positive, spiritual attributes.

Aries rules the brain and the fiery, imperial will. It signifies courage, daring, etc., the first qualities necessary for the battle of life. Ruling the head, the sign and house show us the ability of man to view the field of action, to mark his chart, and arm for the war (which will be incessant); responsible for his acts, a creature of unfolding consciousness, an individual, whose measure of free will enables him to wander so far North or South of his celestial equator, within his orbit, or Zodiac.

The South angle, or Tenth House, now ruled by Capricorn, tells of the honor, position, fame, etc. (or the reverse) acquired by patient labor. The crystallized material gains, the concrete result of ambition, skill, and talent, which will, at the close of his earthly career, become liquefied by the universal resolvent; symbolized by Cancer upon the opposite angle, symbolical of the grave, the end of mundane affairs; when they will be mirrored forth in new forms in that great white sea, according to the manner in which he gained his worldly accumulations and prestige.

The seventh angle is Libra, House of Marriage; that all-important relation which may make or mar a life, the Balance is so easily disturbed in its equilibrium. To preserve its harmony, equality must reign, blending love and wisdom. It is the perfect poise of body, mind, and soul, achieved by loving obedience to the higher laws of our being and the true union of intuition and reason.

The Second House, now represented by Taurus, shows us that personal wealth and possessions must come through patient servitude, steady application, and diligence, in being able to choose and assimilate the knowledge, that will enable man to battle with material conditions, and wrest from the abundant sources of Mother Nature his share of treasure and experience. It is the battle-ground to which humanity, armed with brain and will, life and energy, goes forth to battle with material forces for the bread he must earn by the sweat of his brow, and through the silent, subtle forces of mind and soul conquer matter, thus storing up a wealth of knowledge and experience.

The Third House is ruled by Gemini, the Twins, Reason and Intuition, the brethren who aid and guide us on our many journeys in the pursuit of knowledge. As this sign governs the hands and arms and the executive forces of humanity, we see, that, the hands become the magical agents of mind, moulding into outward form the ideas conceived in the mind, projecting these into the field of active life, that he may write a bright record in the Book of Life. The hands should be kept clean, the images pure; and the perfect poise gained by the equal exercise of love and wisdom, intuition and reason, making the basis of education; the evolution of the interior or real self. This is the true meaning of this house upon the external plane. it is Occult, because it means projecting the powers of the soul into conscious life, externalizing the qualities and magical forces of spirit, as shown in the first instance by Aquarius. This can be accomplished only through pure desire and aspiration. Otherwise, the unbalanced scales, with floods and cataclysms, will be the results.

The Fifth House, ruling children, etc., is symbolized by Leo (the Heart). The joys and sorrows that offspring of every kind bring, all belong to this House of the Heart. The sacrifice indicated is too obvious for comment.

The Sixth House governs sickness, disease, etc., and its symbol is Virgo, an Earthy sign, clearly showing us that the material form is the matrix, out of which are born disease and suffering. But, the perfect assimilation of the fruit of the "Tree of Knowledge of Good and Evil;" transmuting the trials, experiences, sorrows, and suffering of the physical and external life into true wisdom; makes man master of his material universe; and the blind forces of Nature become his servants. Having accomplished the task, and attained the harmonious poise, or balance, in Libra, the individualized soul arrives at the eighth step in the journey.

The Eighth House, or House of Death and Legacies (Scorpio). The old Adam dies. The sensuous has no place in the balanced, harmonious being, but recognizes sex as the law, the door to regeneration now, and that a new legacy is awaiting him.

The Ninth House, Sagittarius. where, with the knowledge acquired, self sits in judgment upon the works of the hands and mind, whether or no they have been well done; the sacrifice of the lower nature properly made, control of the triune being established, the transmutations correct and accurate, assimilation perfect and free from dross, harmony gained by loving obedience to the higher law of being, and thus becomes ruler of his kingdom; the long journey almost accomplished, so far as Earth is concerned, perceiving and understanding that all sciences, philosophies, and religions, have their origin from one primal source. Having penetrated the depths in reverent obedience to the Divine law of creation, and evolved the attributes of the dual constitution, the forces of his being become crystallized. He has reached the culmination of his earthly pilgrimage, and stands forth the perfected human reflection of the higher self.

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The Eleventh House is represented by Aquarius on the human plane. Friends surround and welcome him. These friends are the pure thoughts, noble impulses, lofty ideals, and generous deeds. The bread cast upon the Waters of Life returns to nourish and sustain him in his encounter with the secret foes, symbolized by the Twelfth House and Pisces. The idols, false ideas, and vampires of his own creation, are to be cleansed and washed away by the Waters of Love, the universal solvent that is ever seeking to bring about change and new forms; born again of water to make the round of the astral Zodiac, until, having again reached the equator of the ascending are, where he is reunited to the missing half of his soul, the true friend of the Edenic state; the highest point in the arc of human progress won; the honor and glory of a perfected soul; the Lord and Master, the "I am that I am," to rest in peace in the heart of Infinite Love and Wisdom.

CHAPTER IV. ASTRO-THEOLOGY

There is one species of Divine revelation which has not, and cannot, be tampered with, one great Bible, which forms the starry original of all Bibles.

This sacred Bible is the great Astral Bible of the skies; its chapters are the twelve great signs, its pages are the innumerable glittering constellations of the heavenly vault, and its characters are the personified ideals of the radiant Sun, the silvery moon, and the shining planets, of our solar sphere.

There are three different aspects of this sacred book, and in each aspect the same characters appear, but in different roles, their dress and natural surroundings being suited to the natural play of their symbolical parts. In fact, the whole imagery may be likened unto a play, or, rather, a series of plays, performed by the same company of artists. It may be a comedy, or it may be melodrama, or it may be a tragedy; but the principles behind the scenes are ever the same, and show forth the same Divine Oneness of Nature; demonstrating the eternal axiom. ONE TRUTH, ONE LIFE, ONE

PRINCIPLE, AND ONE WORD, and in their fourfold expression, is the four great chapters of the celestial book of the starry heavens.

In this aspect the visible cosmos may be represented as a kaleidoscope. The visible constellations, planets, and other heavenly bodies, are the bits of colored glass; and Deity the invisible force, which keeps the instrument in motion. Each revolution produces a different pictorial figure, which, complete in its harmony of parts, is perfect in its mathematical proportions, and beautiful in its geometrical designs. And yet each creation, each form, and each combination of forms, are produced by the same little pieces of glass; and all of them, in reality, are optical illusions; i.e., natural phenomena, which deceive the physical senses. So it is with Cosmic Nature.

It must not, however, be supposed, because of this perfect and continual illusion of Nature's playful phenomena, that all visible creation is purely an illusion of the senses, as some cranky metaphysicians would have it, because this is not so.

Going back again to our kaleidoscope, we can clearly see that without it, and its tinted beads, no such optical illusion is possible. There is, then, a basis of spiritual reality to all visible physical phenomena; but this basis lies concealed, because of the perfect illusion which the reflected image produces upon the material plane of the physical senses. The beads themselves are real. These are the basis, and the different pictures are the result, not of the beads, but of the angle from which they are reflected to our earthly vision. In other words, THE PLANE FROM WHICH WE BEHOLD THE PHENOMENA.

Hence, the nearer we approach the Divine center of our being, the less complicated Nature's original designs become, and the farther we are removed from that central source, the more weird, mysterious, complicated, and incomprehensible, does Mother Nature appear, to the finite human mind. And this is especially so, to man's theological instinct, his religiosity, that constitutes one of the fundamental factors of his being.

Nature is ever one in her original truths and their duplicate reflections; but ever conflicting and contradictory in her multiplied refractions through the minds of men. Therefore, we will present the primary concept of that grand Astro-Theology formulated by man's great progenitors; and view the simple machinery, by which they typified to the primitive mind a general outline of Nature's Divine providence.

All sacred books begin with an account of physical creation, the culmination of which, is the appearance of man and woman, as the parents of the race; and, while they will differ considerably in detail and make-up, the basic ideas embodied are essentially the same in all cosmo-genesis; so that in the Jewish Bible, accessible to all, one can read the primitive story of creation from a Jewish point of view, and, when read, rest satisfied that he has read the revelation vouchsafed to man in every age and in every clime. The only difference is one of mental peculiarity and national custom, along with climatic conditions. Hindoo, Chaldean, Chinese, Persian, Egyptian, Scandinavian, Druidic and ancient Mexican are all the same—different names and drapery, to suit the people only, but essentially the same in the fundamental ideas conveyed.

THE CREATION OF THE WORLD

The simple story of creation begins at midnight, when the Sun has reached the lowest point in the arc—Capricorn. All Nature then is in a state of coma in the Northern Hemisphere, it is winter time, solar light and heat are at their lowest ebb; and the various appearances of motion, etc., are the Sun's passage from Capricorn to Pisces, 60 degrees, and from Pisces to Aries, 30 degrees, making 90 degrees, or one quadrant of the circle. Then begin in real earnest the creative powers, it is spring time. The six days are the six signs of the northern arc, beginning with the disruptive fires of Aries. Then, in their order, Taurus, Gemini, Cancer, Leo, Virgo; then Libra, the seventh day and the seventh sign, whose first point is opposite Aries and is the opposite point of the sphere, the point of equilibrium, equal day and equal night, it is autumn. It is the sixth sign from Aries,

the first creative action, and so the sixth day following the fiery force, wherein God created the bi-sexual man. See Genesis, 1:5-27: "So God created man in His own image; in the image of God created He him, male and female created He them."

It is the seventh, or day of the Lord (man), the climax of material creation and Lord of all living things, and be rests in the blissful Garden of Eden. This seventh day and seventh sign is the concealed sacred Libra the perfect union of the sexes. Then comes the fall from Libra, through Scorpio, and banishment from the Garden of Eden. That is the victory of Satan, or Winter, over Summer, etc. It is useless to repeat the same old, old story. The yearly journey of the Sun around the constellated dial of Deity is the Astro basis of all primitive cosmology.

THE SCHEME OF REDEMPTION

In addition to the creation of the world and the fall of man through sin, we find all people in possession of a grand scheme of redemption, and, like the former, we shall find them all essentially the same. They all require a mediator between the angry God and disobedient man, and they all require that this mediator shall be Divine, or semi-Divine. Nothing less can satisfy Deity's demands; or, rather, let us say man's own carnal imagination. It is simply another turn of our cosmic kaleidoscope, and behold! the actors have changed. Capricorn becomes the stable of the Goat, in the manger of which the young Savior of the world is born. As a type of all, we will take the Gospel Savior. It is again midnight. The Sun enters the sign Capricorn on the twenty- first of December. This is the lowest point of the arc, South, and for three days he is stationary, or in darkness. And now it is Christmas Eve. He (the Sun or Savior) begins to move, and at midnight is born as the celestial Virgo is rising upon the Eastern quadrant of the skies; hence the Sun-God is born of a Virgin. Then comes the flight to escape Kronos, or Saturn (ruling Capricorn), who kills the young babes. There is a period of silence in the God's history while the Sun is in transit through the signs Capricorn and part of

Aquarius. That is, he is hidden or obscured by the clouded skies of this period. We hear of him but once again until he, the Sun-God, or Savior, is thirty years old, or has transited thirty degrees of space. He has entered the sign Aquarius (symbolical of the Man.) Now begins the period of miracles.

Let us digress for a space, and refer to our chapter on the constellations. We shall find a perfect analogy between this miracle- working period and the constellations Aquarius and Pisces, as therein given. The first miracle we read of is turning water into wine. This may be seen in a threefold aspect. The Sun-God changes by his life- forces the waters of winter into the rich vintage of the harvest, where the Virgin (Virgo) Mother again appears. Again, the wine becomes the blood—the life offered up on the vernal cross to strengthen, renew and make merry with new life our Earth and its people. The devil (or winter), with his powers of darkness, is defeated and man saved. The final triumph is the crucifixion in Aries, the vernal equinox, about the twenty-first of March, quickly followed by the resurrection, or renewal of life. Then the God rises into heaven, to sit upon the throne at the summer solstice, to bless his people. We read, that, the Savior of mankind was crucified between two thieves. Very good. The equinoctial point is the dividing line between light and darkness, winter and summer. In other words, the Sun is resuming his northern arc, to replenish the Earth with his solar force and preserve his people from death in the coming winter. The life of a Buddha, a Krishna or a Christ, are all found in their completeness in the life of Horus; while the Father, Son and Holy Ghost are Isis, Horus and Osirus. The same trinity, under different names, are found in all nations. It is the Sun, Moon and Human Soul, which is the only true mediator of Man.

There is another version of this celestial crucifixion, wherein the Sun-God-Savior, after the supper of the harvest in Virgo, is crucified at the autumnal equinox upon the equator. We read that he was dying from the sixth to the ninth hours—three hours, three signs, or from the 21st of September to the 21st of December, when he is laid in the

tomb. This is the lowest point of the Sun's journey in the southern hemisphere, and darkness holds the balance in our northern hemisphere. The three days in the tomb are the three months, or three signs, before the vernal equinox, or the resurrection, the rising out of the South to bring salvation to the northern portion of our Earth.

We have now only to glance over various diverging lines of the same cosmology and the same redemption. All these allegories typified TRUTHS. They all teach the Initiate the mysteries of creation, of man's destiny and his necessary Cycle of Material Probation. Some of the most beautiful parables may be read in this light. Abraham, and the story of his wanderings in the deserts of Asia Minor; of Lot and his unfaithful wife, are to be seen still written in the heavens. Hagar and Ishmael are still there; so also are Esau and his brother Jacob; the story of Joseph and his brethren; of Sampson and his twelve labors. This is the same beautiful story. The Sun, shorn of his glory, or solar force, at the autumnal equinox, stands upon the equator between the two pillars of the temple (or light and darkness), and pulls down the temple (or signs) into the southern hemisphere. And behind this we have the eternal truth of the soul, when, giving way to the allurements of matter (Delilah), the soul is shorn of its spiritual covering, or conscience, and sinks into matter and death. And the story of David and Goliath can be read to-day as clearly as of yore.

They are eternal, spiritual verities of human nature, and record, not only the history of the human race, its mutations and transmutations, but of the individual man and the suffering and delusive joys of his material life. Aye, more! It is the record of all his past existence and a type of his eternal destiny in the future.

Another turn of our cosmic kaleidoscope, and lo! the scene changes —the play extended, the angles greater, caused by the revolution of our solar parent through his celestial Zodiac. As the Sun passes out of one sign into another, or, in other words, forms a different angle to his own center of force, a new dispensation is born to the

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world; or, rather, re-born under a new guise. The great Sun-God appears to change his nature and manifests an entirely different set of attributes. That is the way man personified this play of Nature, through his imperfect conception of the cause of this change. But to him it was, and is, a truth, and man's effort to externalize these attributes in a Divine personality was, and is, strictly from the plane of his mental development and spiritual unfoldment.

The two pictures of this Astro-Theology, as set forth in the two divisions of the Jewish Bible, will illustrate our meaning. The Sun had entered the sign Aries some time prior to the exodus from Egypt. Aries is the constellation of Mars, the fiery, destructive and warrior element, or force, in Nature, and we find the Jewish conception of God a perfect embodiment of these attributes: The Lord of Hosts, a God mighty in battle, delighting in the shedding of blood and the smell of burnt offerings, ever marshalling the people to battle and destroying their foes and the works of his own hands; a God imbued with jealousy, anger, and revenge. This was the type set up by the Jewish savior and lawgiver, Moses.

After a period of 2,160 years, we find the Christian cosmology ushered in. The Sun has entered the sign Pisces, which is ruled by Jupiter, the beneficent father. The Christ, or mediator, of the Christian Gospel was an embodiment of the joint qualities of the sign and ruling planet. Gentle, loving and merciful, His words were messages of love and peace; His work was with the poor, oppressed and fallen; he eschewed sacrifices and burnt offerings; a contrite heart was the best offering; He taught the people that God was their Father, loving all, just, yet merciful. But a strong taint of the old conception has remained with the human race, hiding, at times, the beauty of the latter concept. These are, again, the refractions of eternal truths, viewed by man from his material plane. The elements are here presented, the alphabet and its key clearly defined. Therefore, let each one explore this tangled labyrinth of Astro-Theology for him or herself, and work out the various correspondencies at leisure. It is enough to indicate

the starry originals of all this seemingly confused mass of so-called Divine revelation in sacred books.

They, one and all, pertain to the same celestial phenomena, and the various Bibles are the outcome of man's serious attempt to tabulate and externalize this heavenly order, to record his conceptions of these starry aspects and movements with their corresponding effects upon the Earth.

Probably the purest system to us is that which may yet be derived from Chaldean sources. This sacerdotal caste were the most perfect in their astral conceptions and complete in their symbolic system of recording, and if the great work found in King Sargon's library in seventy tablets is ever translated, it will prove of priceless value to the student of these weird, but sublime, astrological mysteries.

In conclusion, as we reflect upon the fourfold aspect of the subject that we have presented in outline in these pages, the whole imagery passes in review before the mental vision. We see that the radiant constellations of the heavenly vault, with the beautiful reflection and counterpart, the shining Zodiac, are the two halves of the great Cycle of Necessity, the spiral of eternal, universal life, which binds the whole into unity, and unity into infinity. It is the grand scheme of creative life. The seven principles of Nature, or Divine Activities, are the forces producing the phenomena within seven angelic states, seven kingdoms, and, by seven planets, upon the external plane; the planets being the passive mediums of the positive spiritual forces. Upon this dual spiral, which reflects the seven rays of the solar spectrum is produced seven musical notes; one half of the spiral in sound and color being the complementary of the other half. Man, the Earth, and our solar system, are revolving, each orb in its own key, and its own peculiar ray, meeting and blending with other spirals, and the whole blending into one mighty spiral Cycle of Progressive Life, revolving around the Eternal, Infinite Ego-

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God, ever involving and evolving the attributes, powers and possibilities of the One great central source of Being.

It is a grand orchestra, pealing out in richest melody and sublime HARMONY, the grand Anthem of Creation: "We Praise Thee, O God."

CHAPTER V. ASTRO-MYTHOLOGY

The Astro-Mythological system of the ancients, though forming the last section, so to say, of the mysteries of the Divine Urania, is, perhaps, the most beautiful of its general features, and perfect in the complete fulfillment of the purpose for which it was intended, viz.:— to convey to the human mind a lesson, a moral, a truth in Nature; and last, but not the least, to serve as a basis upon which its inner aspirations and its more external faith might rest in security.

When we come to examine the deep, philosophical principles of such a wise system, we are almost astounded at the result of our researches and the wisdom of human nature displayed in formulating such perfect analogies of truth, semi-truth, and of falsehood, according to the plane occupied by the individual.

Let us take one instance, which will clearly explain all the rest, for they are built and formulated after the same model. Aeneas, of Greek myths and fables, is reputed to be the son of Venus by a MORTAL father, upon the plane of reality. As that of actual PARENT and CHILD, of course this is an utter falsehood. To the rural population of long, long ago, and their simple, rustic conceptions, IT WAS A TRUTH.

Why so? Because they believed it, and to them it taught the required lesson of obedience to the powers that be. But if in reality it was a falsehood, how can it become a truth by the simple addition of acceptance and belief? Because it possessed a metaphysical truth, though not a physical one, in the sense accepted.

Aeneas, son of Venus, whose history is so beautifully preserved by the immortal Virgil, was (metaphysically speaking) son of the goddess, because he was, in his astral and magnetic nature, ruled and governed by Venus, born under one of her celestial signs and when she was rising upon the ascendant of the House of Life, even as Jesus Christos was born of a virgin, because Virgo was rising at His birth.

Thus Aeneas was, in strict metaphysical reality, a son of Venus. Having satisfied the rural mind, which thus, unconsciously, accepts an absolute truth under a physical disguise, the metaphysical thinker, the philosopher, also accepts the same fable, knowing and realizing its more abstract truth,

But, again, we are met with the objection that such a truth is only apparently a truth; i.e., on the plane of embodied appearances, and naturally the question arises, where (if at all) is the real truth of the mythos? That truth which is beyond the mere metaphysical thinker and commonplace philosopher; the truth which the Initiates recognize—where is it? That truth lies far beyond the purview of Astro-Mythology. It is connected with the center of angelic life. Sufficient here to say that, as there are seven races of humanity, seven divisions to the human constitution, seven active principles in Nature, typified by the seven rays of the solar spectrum, so are there seven centers of angelic life, corresponding to the seven planetary forces formulated in "The Science of the Stars," and, as each one of us must of necessity belong to one of the particular angelic centers from which we originally emanated, the Initiate can see no reason why AENEAS MAY NOT IN REALITY belong to that celestial vortex represented by Venus upon the plane of material life. This being the case, we see how beautiful the ancients' system of temple worship must have been. The simple rustic, in reverence and awe, accepting the gross and physical meaning—the only one possible to his dark, sensuous mind. The scholar and philosopher bow their wiser heads with equal humility, accepting with equally sincere faith the more abstract form of the allegory; while on the other hand, the priest and the Initiate, lifting their loftier souls above the earth and its

formulas of illusion and matter, accept that higher and more spiritual application, which renders them equally as sincere and devout as their less enlightened worshipers. It is thus we find these astro-myths true for all time, true in every age of the world, and EQUALLY TRUE OF ALL NATIONS. And this is the real reason why we find every nation under the Sun possessing clear traditions relating to the same identical fables, under different names, which are simply questions of nationality. And when mythologists, archaeologists, and philologists once recognize the one central, cardinal truth, they will cease to wonder why nations, so widely separated by time and space, possess the same basic mythology. They will then no longer attempt its explanation by impossible migrations of races, carrying the rudiments with them. They will find that this mythology was a complete science with the ancient sages, a UNIVERSAL MYSTERY LANGUAGE, in which all could converse, and that it descended from the Golden Age, when there was but ONE nation on the face of the Earth, the descendants of which constituted the basic nucleus of every race which has since had an existence. In this light all is simple, clear, and easy to comprehend—all is natural.

The astronomer-priests of the hoary past, when language was figurative, and often pictorial, had recourse to a system of symbols to express abstract truths and ideas. In order to impress the minds of pupils with a true concept of the attributes of the celestial forces, we call planets, they personified their powers, qualities, and attributes. Just as the average mind of to-day cannot conceive of Deity apart from personality, so did primitive man clothe his ideas in actual forms, and in these impersonations, they combined the nature of the celestial orb with that of the zodiacal sign or signs, in which the planet exerted its chief and most potent activities. For instance, the planet Mars, whose chief constellation is Aries, was described as a great warrior, mighty in battle, fierce in anger, fearless, reckless, and destructive; while the mechanical and constructive qualities were personified as Vulcan, who forged the thunderbolts of Jove, built palaces for the gods, and made many useful and beautiful articles. Then, again, we

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find that Pallas Athene was the goddess of war and wisdom. She sprang from the head of Zeus. Aries rules the head, and represents intelligence. Athene overcame her brother Mars in war, which shows that intelligence is superior to brute force and reckless courage.

Here, we see three different personages employed to express the nature of the powers and phenomena produced. They were called gods and goddesses. This was quite natural, as the planets of our system are reflections of Divine principles. Esoterically, Mars symbolizes strength, victory—attributes of Deity.

Mars is said to have married Venus, teaching us that the union of skill and beauty are essential in all artistic work.

Mythology tells us that the god Mars was supposed to be the father of Romulus, the reputed founder of Rome. Romulus displayed many characteristics of the planet. The mythos is no doubt a parallel to that of Aeneas. Rome was founded when the Sun in his orbit had entered the sign Aries, and Mars was the god most honored by the Romans. In time, with the degeneration of human races and their worship, to the rural mind, the subjects of the mythos became actual personalities, endowed with every human passion and godlike attribute, the former characterizing the discordant influence of the heavenly bodies upon man.

Gai, Rhea and Ceres, or Demeter (Greek), represent the triune attributes of Mother Earth. Gai signifies the Earth as a whole, Rhea the productive powers of the Earth, and Ceres utilizes and distributes the productive forces of Rhea.

In the charming story of Eros (Divine Love), son of Mars and Venus, he (Eros), we are told, brings harmony out of chaos. Here, we see the action of Aries and Taurus, ruled respectively by Mars and Venus.

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The beautiful myth of Aphrodite, born of the sea foam, is Venus rising out of the waters of winter, to shine resplendent in the western skies at evening, and typifies the birth of forms, as all organic forms have their origin in water.

In all lands the Sun was known under various names, typical of solar energy, especially in reference to the equinoctial and solstitial colures.

Henry Melville, in his valuable work, "Veritas," says no reliance can be placed upon ancient dates, either of Europe, Asia, or anywhere else, and he conclusively shows that such dates are Astro-Masonic points on the celestial planisphere, the events recorded being, as it were, terrestrial reflections of the celestial symbols.

To attempt to wade through all the various systems of mythology, and explain each in its proper order, would be to write a large encyclopedia upon the subject. We have given a few examples as keys, and suggest works for study. We have here given the real key, and the student must fathom particulars for himself. The chief work, and most valuable in its line, is Ovid's "Metamorphoses." The next, also the most valuable in its line, is "The Mythological Astronomy of the Ancients," with notes (these latter are the gist and constitute the real value), by S. A. Mackey; and last, and, perhaps, in some sense, not the least, is the "Wisdom of the Ancients," by Lord Bacon. This is published in "Bacon's Essays."

A careful study of Ovid, with the key which this chapter supplies, will reveal ALL that pertains to ancient gods, demi-gods, and heroes, while a study of Mackey, and a careful comparison with "La Clef" and "La Clef Hermetique" will reveal all that pertains to cosmic cycles and astral chronology, which is the only chronology that is quite trustworthy, as far as ancient history is concerned.

While we are on this subject, we must point out some of the delusions, into which the subtle, magical teachings of the Orient would lead the student.

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All the monster sphinx, half human, half animal, etc., which the ancients have preserved, are simply records of the past. They are chronological tables of cosmic time, and relate to eras of the past, of the Sun's motion, and not by any means to living creatures of antediluvian creations, as some wiseacres have imagined. Many of these ancient monuments, monstrous in form, are records of that awful period of floods and devastation known as the Iron Age, when there was a vertical Sun at the poles; or, in other words, when the pole of the Earth was ninety degrees removed from the pole of the ecliptic. To those who can read aright, every lineament tells as plainly as the written word the history of that awful past, marking the march of time, recording the revolutions of the Sun in his orbit of 25,920 years, and relating with wonderful accuracy the climatic changes, in their latitudes, which took place with each revolution of the Sun and corresponding motion of the Earth's pole of less than four degrees. All the greater myths of the dim past were formulated to express cosmic time, solar and polar motion, and the phenomena resulting therefrom. These monuments of antiquity prove that, the ancients knew a great deal more of the movements of heavenly bodies and of our planet than modern astronomers credit them with.

Madame Blavatsky, in her "Secret Doctrine," seriously states that all these monstrous forms are the types of actual, once living physical embodiments, and, with apparent sincerity, asserts that the Adepts teach such insane superstitions.

Such, however, is not the case, neither is there anything true, or even approaching the truth, in the cosmogony given in the work in question.

And, lastly, we have but one more aspect of the grand old Astro- Mythos to present to your notice. This aspect reveals the whole of the ancient classification of WORK and LABOR, and gives us a clear insight into the original designs, or pictorial representations, of the twelve signs and the twelve months of the year. It also clearly explains many things which are to-day attributed to superstitious paganism.

As each month possesses its own peculiar season, so are, or were, the various labors of the husbandman, and those of pastoral pursuits, altered and diverted. Each month, then, bad a symbol which denoted the physical characteristics of climate and the temporal characteristics of work. As the Sun entered the sign, so the temple rites varied in honor of the labors performed, and the symbol thus became the object of outward veneration and worship. So we see that the twelve signs, and principally the four cardinal ones, became Deities, and the symbols sacred, but in reality, it was the same Sun to which homage was paid.

There is a large sphere of study in this direction, as, of course, each climate varied the symbol to suit its requirements. In Egypt there were three months when the land was overflowed with water; hence, they had only nine working months out of doors, and from this fact sprang the Nine Muses, while the Three Sirens represented the three months of inactivity in work, or three months of pleasure and festivity.

Mackey tells us that the great leviathan mentioned in the Book of job was the river Nile.

In nearly all mythologies, we find that the gods assembled on some high mountain to take counsel. The Olympus of the Greeks and Mount Zion of the Hebrew Bible mean the same, the Pole-Star; and there, on the pictured planisphere, sits Cephus, the mighty Jove, with one foot on the Pole-Star and all the gods gathered below him. The Pole-Star is the symbol of the highest heaven.

With this we close, leaving the endless ramifications of this deeply interesting subject to the student's leisure and personal research, trusting the keys we have given in this chapter and their careful study may induce the reader and student of these pages to search out for himself the meaning concealed in all Astro-Mythologies.

CHAPTER VI. SYMBOLISM

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At this point of our study it is necessary to make a halt; and, before proceeding further, to attempt to formulate and realize that, which, so far, we have been pursuing.

First, then, we have passed in review the Zodiac, and then the constellations. From this we mentally surveyed both Astro-Theology and Astro-Mythology; and now, it is our first duty to realize these in their real significance, and this consists in a clear comprehension of the Grand Law of Correspondences.

What is this law? It is the law of symbolism, and symbolism, rightly understood, is the one Divine language of Mother Nature, a language wherein all can read, a language that defies the united efforts of both time and space to obliterate it, for symbolism will be the language of Nature as long as spirit expresses itself to the Divine soul of man.

No matter where we turn nor where we look, there is spread out to our view a vast panorama of symbolic forms for us to read. In whatever form, angle, or color they present themselves, the true student of Nature can interpret and understand their symbolic language aright. It has been by the personification of Nature's symbols, that man has become ignorant of their language. There is no form, sound, nor color but what has its laws of expression; and only a perfect knowledge of symbolism will enable man to know the law, power, and meaning, lying behind such manifestations. The law of expression is exact, and as unalterable as Deity Himself. The physical senses cannot vibrate to these interior forces, and through them, comprehend their law. The physical senses vibrate to the spirit's expression, not to the powers, forces, and laws, which brought them into objective existence.

Countless numbers of mystics, if such they deserve to be called, among present-day students, speak and write very learnedly upon the "Law of Correspondence," and few, if any, of them really understand or know anything at all of that law. The intellect alone cannot solve the problems of this law. It cannot grasp the true, interior and spiritual meaning, except in just so far as intellect is capable of externalizing them. The inmost

spiritual truths, that cannot be demonstrated to the outward senses, never have, nor never will, appeal to any one who has not the interior ability to comprehend them.

There was a time when men ruled by pure intellect, without its accompanying other half, intuition: they were looked upon as monstrosities. This state of purely intellectual development has been brought about by the positive, masculine principle, reason, absorbing its counterpart, the intuition, the feminine portion; and the result, by correspondence, is as fatal as upon the interior plane, where the positive, masculine soul denies the existence of his mate; thus setting upon his throne, only a portion of himself as his idol, and then, reasons himself into the belief that he is complete. Love has been cast out, ignored and forgotten until at last she departs, leaving a vacancy, that eternity cannot fill.

This is somewhat similar to their illusive Devachan, an ideal, a mere mystical sentiment to gush over, but a something they do not in reality comprehend. Therefore, we shall do our utmost to explain this universal law, and to point out wherein its first principles are manifest. Once these are mastered, the Golden Rule will explain all the rest: "As it is below, so it is above; as on the earth, so in the sky."

Here, then, is our first lesson on the subject of REALITY, which constitutes the Hermetic science of Correspondences.

First, realize that a line or an angle, for instance, is something more than its mere mathematical outline. It corresponds to some power, force, or principle within the great Anima-Mundi of the mysteries, that are trying to find expression, in their evolutionary journey, in forms. Let us illustrate our meaning. A point or dot is what? Well, externally it is the alpha of all mathematics. It is the first finite manifestation of the spiritual force. Within that dot lies concealed, in embryo, all the future possibilities of the manifesting principle.

This dot or point is a something to begin with, a form externalized, from which all future forms may spring forth, and they may be infinite, both in number and variety. First a primary, simple idea, from which all ideas and thoughts, intricate and complex, have their being.

A point extended is a straight line, scientifically expressed (whereas in real truth there is no such thing as a straight line); that is to say, it is a form increased or multiplied by itself, and therefore, is an extension in space that can be measured, and each extension means a new form, an additional symbol. It has taken on new aspects, new relations, hence contains the second principle of mathematics, so to say; but, besides being points, THEY ARE SYMBOLS. They are principles in Nature as clearly related to each other as the leaf and the stem of plant life.

Each monad, or point in the universe, is the beginning of something; equally so, it is also the termination of its own forces in that particular action, and will remain inert until it becomes acted upon by something else.

A point, then, is a primary, simple idea, a straight line. An angle is the same idea, rendered greater and more complex, and refers to the same forces upon a different plane, and the more we multiply the angles the more complex and far-reaching becomes the symbol and the more numerous and diverse become its planes of action. Here we will introduce an example. A trine represents three forces or angles, and, when united, form a trinity, hence harmony. Its apex (when above) is celestial, therefore represents the male forces of spirit.

A trine reversed also represents the same forces, with its apex in matter, hence it is negative. In these two complex ideas, clearly represented by these symbols, we have ALL matter and spirit; and yet they are but extensions of our point in space, rendered far-reaching and complex, by the position and the number of angles presented.

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Let us turn the key once again, and we find that, both spirit and matter possess the same outline in their primal concept, except reversed (polarized).

Let us unite these two trines, and we have a still more potent form; a symbol almost infinitely complex. We have spirit and matter united, or, rather, three rays of force, positive, meeting three rays of force, negative, at a given point. Thus we have six points, also six sides, the ultimate of which is a cube. All are now equal. It is the first force of a crystallization (creation) of matter.

Once again let us turn the key, and we have our two conceptions in a metaphysical sense; the trine with its apex above is as the trine with its apex below, both the same in form, yet vibrating to very different planes, and a very different language is required to read and interpret their meaning aright. The spiritual, or the trine with its apex above, draws its influence from the celestial, and as it condenses and takes on form in the trine of matter, it transmits this same Divine force through its apex, which points below, to matter. The double trine is found upon every plane, obeying the Divine Law of Correspondences.

It is, in this sense, called "Solomon's Seal," because it is the grand hieroglyphic of the Hermetic law: "As it is above, so it is below; as on the Earth, so in the sky."

To continue this line of reasoning, or speculation, let us say, would lead us beyond the firm basis of human reason; it would escape the grasp of intellect, to which I am compelling this course of instruction to bend, but it would never take us beyond the real limits of the universe; yet, not to extend our investigations, we would ever remain in the lower trine, in the realms of effects, and lose sight entirely of the trine of spirit, from whence originated the force and potency in the form of matter.

Therefore it is, that the science of Symbolism has been evolved and formulated. The symbols, the manifestations, are ever present, and the study of effects will, to a

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developed soul, suggest the cause, the nature of the principle back of it, as well as the law which would produce such effects. Such is the science of symbolism; and it bounds and binds back into a religio-philosophical system, each class of symbols and each plane of manifestation; as securely as modern savants have defined the province of chemistry, magnetism, and mathematics; and, so far, these bounds are useful. But it is only a question of time and space, after all, because, when resolved back, or, let us say, evolved up into their abstract principles; chemistry, magnetism, and mathematics, are purely arbitrary terms to express special features of the same one eternal thing or science—which is EXISTENCE; and it, in turn, is CONSCIOUSNESS; not that external consciousness of existence, not that knowledge and love of living, but that interior, conscious knowledge, which tells us why and how we exist, by what force and power we are sustained and permitted to obey and carry out the law of mediumship, reception and transmission, attraction and repulsion, spiritual and material, that ultimately blend and become as one, the double trine, and, united with the Divine Ego of its being, becomes complete; seven, the perfected number of form.

The sum total, then, of all, and the value it may possess to the individual, is measured by his ability to perceive; for there is nothing external that is not in some sense mental, and there is nothing mental that is not in some sense spiritual. The sides of the triangle, physical, mental, and spiritual, and the apex where meet the mental and spiritual, forms the center of contact to higher trines in realms above.

Where mind is not, there are no symbols, no ideas, no manifestations. The spirit has not yet reached that point in its evolutionary journey where it can yet crystallize its projected force, power, or ideas, into forms; for everything that is, is the outcome of Divine thought, and expresses within itself the symbol of its being. This is the arcana of the Law of Correspondences.

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Remember the above teaching, because upon its full comprehension rests the ability to read symbols aright. It will aid the soul to fully realize that, the vast universe is but the mental image of the Creator; that there is no such thing as manifested existence apart from mind; and consequently, the infinite worlds that float securely in space, blushing and scintillating with light of life and love of the Father, revealing to mortal minds some faint conception of the awful resources and recesses within Nature's star-making laboratory, are but the scintillating reflection of life, the reactions of mental phenomena. So, too, with the mental creative powers of the mind of man, for, not a vibration that proceeds from his every thought but what creates its correspondence in the creative realm of spirit. Hence, symbolism continues giving to the soul of man, throughout eternity, food for thought and contemplation.

All symbols, then, are objectified ideas, whether human or Divine; and as such possess a real meaning; and this meaning is altered, extended and rendered more complex with every additional thing or influence by which we find it surrounded, or with which, we find it correlated. For instance, $1.00 means one dollar; add six ciphers to the left 0000001., and it is still the same $1.00, and no more, because their position is previous, or before, the 1. But add the same number of ciphers to the right, $1,000000, and lo! we find a wondrous change of force, power, and consequence. We see all the mighty power of our million of money, and the possibilities and responsibilities with which, in these days, it becomes associated.

So it is with everything else in Nature. Man pays the penalty by increased responsibility, for every step in knowledge that be takes, as well as every dollar in gold be procures. Dollars, as well as talents, have to be accounted for, and their usefulness increased tenfold. The dollars must not be buried nor hoarded any more than our talents, but each, unfolded and doubled, so that we may be instrumental in helping our coworkers in their upward path, in the Cycle of Necessity. Knowledge is the basic foundation in reading Nature's language. Purity of thought, truth in motive, and

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unselfish benevolence, will lift the veil that now lies between the two trines, cause and effect, spirit and matter.

We have given the key and explained the alphabet of this wondrous law; therefore we close. Each must, by the same rules, work out the special links in the chain for him or herself. The angle from which each take their view determines the reading and interpretation of the symbols presented, whether that be from the apex, the sides or the base, for every symbol has its trinity in principles and form. Cause and effect are but the action and reaction; the result is the symbol which reveals the correspondence of both.

CHAPTER VII. ALCHEMY—PART I

What a weird yet strangely pleasing name the term Alchemy is. It is simple, yet so infilled and intermixed with the possible verities of exact science and the philosophical speculations on the infinite and the unknown, as to elude our mental grasp, as it were, by its own subtle essence, and defy the keenest analysis of our profoundest generalizers in science. And yet, in spite of this self-evident truth, how fascinating the sound of the word becomes to the mystic student's ear, and bow pregnant with awful and mysterious possibilities it becomes, to the immortal powers embodied within the complex human organism termed man.

Words, if we but knew it, have the same innate, magnetic influence, and possess the same power of affinity and antipathy, that the human family possesses; as well as all organic and inorganic forms and substances; and how sad, to a developed soul, to witness the inharmony existing in our midst, caused by the misapplication of names.

Most human beings are very conscious of personal, or human magnetism, and its effects. But they stop right there, and do not dream of the subtle, silent influences

emanating from a name, a word, and the power existing in words, when properly used. The human mind is so absorbed in Nature's manifestations, which are only the husks, that they fail to see the true, hidden meaning and realities, concealed beneath the material shell.

We will first notice the meaning of the words which constitute our subject, viz., Alchemy, then give a brief review of its physical correspondence, chemistry, and its true relation to its spiritual counterpart, Alchemy.

"Al" and "Chemy" are Arabic-Egyptian words which have much more in them than appears upon the surface, and possess a far different meaning from the one which the terms usually convey to the average mind. Terms, and the ideas we associate with them, vary according to the age in which we live. So with those, from which the word Alchemy is derived.

Let us penetrate beneath the mere verbal husk with which linguistic usage and convenience have clothed them, and which, in the course of ages, has become nothing but the dross of decomposed verbiage, and see if we can excavate the living germ, that has become buried within. If we can do so, we shall, at the commencement of our study, have attained unto a realization of the ancient meaning and real significance of the terms employed. And this will be no small gain, and will form no unimportant part of the equipment in our present research.

The Arabians, who derived the whole of their Occult arcana from the Egyptians, are the most likely to render us the most truthful and direct significance of the word, and so we find them. Thus, "Al," meaning "the," and Kimia," which means the hidden, or secret, ergo THE OCCULT, from which are derived our modern term Alchemy, more properly Al Kimia. This is very different from the popular conception to-day, which supposes that the word relates to the art of artificially making gold by some chemical process, and viewing it only as some sort of magical chemistry, forgetting that, the

science of chemistry itself is also derived from the Kimia of Arabian mystics, and was considered as one and the same thing by every writer of the Middle Ages.

At this time, the physical man was not so dense and grasping for husks; hence the soul and spiritual part had greater control, and could impart the real, the alchemical side, of Nature to him; hence the Law of Correspondences was understood, and guided the educated in their considerations, researches, and conclusions.

Do you ask why, if they were so enlightened, they have veiled their knowledge from the world at large?

The power of mind over matter was as potent in those days as now, and the masses were as correspondingly corrupt as they are today. Therefore, to put this knowledge into the hands of the multitude would have been generally disastrous. So they wrote it in mystical language, knowing that all educated students in Nature's laws, at that time, would understand; yet they little dreamed how much their language would be misunderstood in the centuries to follow, by those who look to their ancient ancestry for aid on subjects that have become at the present day so lost in mystery.

Having ascertained, beyond question, that Alchemy was, and consequently is, the secret science of Occultism—not the philosophy, mind you, but the science; let us proceed, for, we shall find that these two aspects may often differ, or appear to differ, widely from each other, though they can never do so in reality, for the latter produces and establishes the facts, while the former occupies itself in their tabulation and deductions. The science constitutes the foundation, and the philosophy, the metaphysical speculations, which rest thereon. If these important distinctions are borne in mind, all the apparent confusion, contradiction, and other intellectual debris, will either disappear or resolve themselves into their own proper groups, so that we may easily classify them.

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It is at this very point, that, so many students go astray amid the labyrinths of science and philosophy. They, unconsciously, so mix and intermingle the two terms, that nine-tenths of the students present only one side of the question—philosophy, which soon runs into theory, if not supported by the science, which they have lost in their volumes of philosophy.

You may say, one subject at a time. Yes, this may be true, if its twin brother is not absorbed and forgotten.

In this chapter, we shall deal especially with organic Alchemy.

Organic Alchemy deals exclusively with living, organic things, and in this connection differs from the Alchemy of inorganic matter. These two aspects may, in this one respect, be compared to organic and inorganic chemistry, to which originally they belonged; as astrology did to astronomy. Alchemy and astrology—twin sisters—were the parents of the modern offspring, known in chemistry and astronomy as exact science. These latter, however, deal with shadows and phenomenal illusions, while the former concern the living realities, which produce them. Therefore, there can be "no new thing under the sun," saith Solomon.

First, let us deal with the most lovely form of our art, that which pertains to the floral and vegetable kingdoms. Every flower or blade of grass, every tree of the forest and stagnant weed of the swamp, is the outcome of, and ever surrounded by, its corresponding degree of spiritual life. There is not a single atom but what is the external expression of some separate, living force, within the spaces of Aeth, acting in unison with the dominant power corresponding with the type of life.

If science could only behold this wonderful laboratory within the vital storehouse of Nature, she would no longer vainly seek for THE ORIGIN OF LIFE, nor wonder, what may have become of the missing link in scientific evolution, because, she would quickly

realize that, biogenesis is the one grand truth of both animate and inanimate Nature, the central, living source of which is God. Science would also, further realize that, this biune life is ever in motion throughout the manifested universe; circulating around the focii of creative activities, which we term suns, stars, and planets, awaiting the conditions which are ever present for material incarnation; and under all possible combinations of circumstances and conditions, conceivable and inconceivable, adapting itself to continuous phenomenal expression. Links, so called, in this mighty chain of evolution, may appear to be missing here and there, and, for that matter, whole types may seem to be wanting, but, this is only because of our imperfect perception, and, in any case, can make no real difference with the facts, because, if such be a reality, if there be what we may term MISSING LINKS in the scheme of evolution, it only shows that spirit, although associated with, is ever independent of matter.

But matter—what is to become of it? Is it independent of spirit? The kindness of the Divine spirit heeds not the unconscious mind of matter and its boasted independence, and works silently on, and at last, accomplishes its mission—the evolution of matter, the uplifting of the soul of man, as well as the universe. The blindness of man is dense, and the saddest part to admit is that, they will so stubbornly remain so.

If, for one instant, the penetrating eye of the soul could shine forth through the physical orbs of vision, and imprint the scenes, beheld behind the veil, upon the tablets of the brain of the physical organism, a fire would be kindled that, could never be quenched by the fascinating allurements of the material, perishable things, of matter.

That development of the real atom of biune life can, and does, go forward, irrespective of the gradation of physical types, needs no convincing proof, other than visible Nature.

MAN IS NOT THE OUTCOME OF PHYSICAL EVOLUTION, and produced by a series of blind laws, that lead him upward from protozoa to man, as a child climbs up

stairs, advancing regularly, ONE STEP AS A TIME. This latter conception, we know, is the theory of exact science, but not of Alchemy, not of the science of Occultism. Man, according to Wallace, Darwin, Huxley, and Tyndall, is what progressive stages of physical evolution have made him. But the very reverse is true. The fauna and flora of past geological periods are what the human soul has produced, by virtue of its gradual advancement to higher states and conditions of life, so that, so far from man being the outcome of the planet's development, such material progress is the outgrowth of man's advancement, proving again that, matter is not independent of spirit, neither can spirit be independent of matter for its expressions. They so interblend that, the dividing line cannot be detected by the untrained eye of the exact scientist. But, that time is not far distant, when the scientists will prepare and evolve their interior being to take up the spiritual thread, exactly where the visible thread ends, and carry forth the work, as far as the mortal mind of man can penetrate, while embodied in the physical form.

God hasten this day is my prayer, for then man will become more spiritual and aspiring for advancement and knowledge, thus, setting up vibrations that will create higher and loftier conditions for the physical man. Aye! then they will know that, even the birth of the world itself, owes its primal genesis to the desire of the human atom for earthly embodiment.

Here is where exact science, or the counterpart of Alchemy, becomes both profitable and helpful. Says Paracelsus: "The true use of chemistry is not to make gold, but to prepare medicines." He admits four elements—the STAR, the ROOT, the ELEMENT and the SPERM. These elements were composed of the three principles, SIDERIC SALT, SULPHUR, and MERCURY. Mercury, or spirit, sulphur, or oil, and salt, and the passive principles, water and earth. Herein we see the harmony of the two words, Alchemy and Chemistry. One is but the continuation of the other, and they blend so into each other that, they are not complete, apart.

The chemist, in his analysis of the various component parts of any form of matter, knows also the proportional combinations; and thus, by the Law of Correspondence, could, by the same use of the spiritual laws of Alchemy, analyze and combine the same elements from the atmosphere, to produce the corresponding expression of crystallized form. By the same laws, are affinities and antipathies discovered and applied, in every department of Nature's wonderful laboratory.

Chemistry is the physical expression of Alchemy, and any true knowledge of chemistry is:—not the knowing of the names of the extracts and essences, and the plants themselves, and that certain combinations produce certain results, obtained from blind experiments, yet, prompted by the Divine spirit within; but, knowledge born from knowing the why and wherefore of such effects. What is called the oil of olives is not a single, simple substance, but it is more or less combined with other essential elements, and will fuse and coalesce with other oils and essences of similar nature. The true chemist will not confine his researches for knowledge to the mere examination, analysis, and experiments, in organic life; but will inform himself equally, in physical astrology; and learn the nature, attributes, and manifested influences of the planets, that constitute our universe; and, under which, every form of organic matter is subject, and especially, controlled by. Then, by learning the influence of the planets upon the human family; and that special planetary vibration that influences the individual; he can intelligently and unerringly administer medicines to remove disease in man.

A familiarity with the mere chemical relations of the planet to man, makes still more apparent, the mutual affinity of both to the soil, from which they appear to spring, and to which, they ultimately return; so much so that, we have become conscious, that, the food we eat is valuable or otherwise as a life sustainer, in proportion to the amount of life it contains. We are so complex in our organization that, we require a great variety of the different elements to sustain all the active functions and powers within us. Man, being a microcosm, or a miniature universe, must sustain that universe, by taking into

the system the various elements, which combine to make up the Infinite Universe of God. Animal flesh is necessary to certain organized forms, both animal and man. When I say necessary, I do not mean an acquired taste and habit of consuming just so much flesh a day; but a constitution, which would not be complete in its requirements, without animal flesh. I am thankful such do not constitute the masses.

Science would say, you only require certain combinations of oxygen, hydrogen, nitrogen, and carbon, to sustain all the activities of the physical body. Apparently, this is true. Upon the surface it is, but in reality it is not; because if it were really true there could be no famines. Science could make bread out of stones, as was suggested at the temptation of Christ in the wilderness. And yet, no one knows better than the academies of Science, themselves, that their learned professors would quickly starve to death, if they were compelled to produce their food from the chemical properties of the rocks. They can make a grain of wheat chemically perfect, but they cannot make the invisible germ by which it will grow, become fruitful, and reproduce itself. They can reproduce from the stones in the street the same chemical equivalents that go to compose gluten, albumen, and starch—the trinity which must always be present to sustain life; but they cannot, by any known process, make such chemical equivalents of these substances, do the same thing. Now, if not, why not? Science cannot answer this. A very mysterious shake of the head and profound silence is the only answer. Ask Science HOW THE PLANT GROWS, what causes the atoms of matter to build up root, stem, leaf, bud and flower, true to the parent species from which the germinal atom came. What is there behind the plant that stamps it with such striking individuality? And why, from the same soil, the deadly aconite and nutritious vegetable can grow, each producing qualities in harmony with its own nature, so widely different in their effects upon the human organism, YET, SO COMPLETELY IDENTICAL AS REGARDS THE SOURCE FROM WHICH THEY APPEAR TO SPRING. There must be a something to account for this, and this something, ancient Alchemy alone can scientifically reveal and

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expound; and, this knowledge lies just beyond that line which calls a halt to material scientists, and says: "You can go no farther; this is beyond your purview. The end of the material thread has been reached, and unless you can connect it with the thread of the next plane, your researches must stop."

Before entering upon and answering these vital questions, we must digress a little, and make ourselves perfectly familiar with the ideas and revelations of advanced physical science upon the subject, and for this purpose no more trustworthy guide can be consulted than the new edition of "The Chemistry of Common Life," by the late James F. W. Johnson, M. A., England, and revised by Arthur Herbert Church, M. A. In chapter IV on page 56 of this work, upon the anatomy of plant life, we read:

"How interesting it is to reflect on the minuteness of the organs by which the largest plants are fed and sustained. Microscopic apertures in the leaf suck in gaseous food from the air; the surfaces of microscopic hairs suck a liquid food from the soil. We are accustomed to admire, with natural and just astonishment, how huge, rocky reefs, hundreds of miles in length, can be built up by the conjoined labors of myriads of minute zoophytes, laboring together on the surface of a coral rock; but it is not less wonderful that, by the ceaseless working of similar microscopic agencies in leaf and root, the substance of vast forests should be built up and made to grow before our eyes. It is more wonderful, in fact; for whereas, in the one case, the chief result is that, dead matter extracted from the sea is transformed into a dead rock; in the other, the lifeless matter of the earth and air are converted by these minute plant-builders into living forms, lifting their heads aloft to the sky, waving with every wind that blows, and beautifying whole continents with the varying verdure of their ever-changing leaves."

Further on in the same chapter, on pages 62-3, the same eloquent writer continues:

"But the special chemical changes that go on within the plant, could we follow them, would appear not less wonderful than the rapid production of entire microscopic

vegetables from the raw food contained in the juice of the grape. It is as yet altogether incomprehensible, even to the most refined physiological chemistry, how, from the same food taken in from the air, and from generally similar food drawn up from the soil, different plants, and different parts of plants, should be able to extract or produce substances so very different from each other in composition and in all of their properties. From the seed-vessels of one (the poppy) we collect a juice which dries up into our commercial opium; from the bark of another (cinchona) we extract the quinine with which we assuage the raging fever; from the leaves of others, like those of hemlock and tobacco, we distil deadly poisons, often of rare value for their medicinal uses. The flowers and leaves of some yield volatile oils, which we delight in for their odors and their aromatic qualities; the seeds of others give fixed oils, which are prized for the table or use in the arts * * * These, and a thousand other similar facts, tell us how wonderfully varied are the changes which the same original forms of matter undergo in the interior of living plants. Indeed, whether we regard the vegetable as a whole, or examine its minutest part, we find equal evidence of the same diversity of changes and of the same production, in comparatively minute quantities, of very different, yet often characteristic forms of matter."

From the whole of the foregoing, we observe the exact position to be the one we have previously stated. If such wondrous things can be revealed to us through the physical science of chemistry, what think you must be hidden from our physical sight and knowledge by the veil which hangs between matter and spirit? Think you not, it is worth the effort to penetrate beyond that point where the atom disappears from the view of the scientist?

If plants produce such wonderful phenomena in their life and influence, what must the Divine organism of man have concealed within his microscopic universe, to study and comprehend? Plant life is merely the alphabet of the complex, intricate, and multitudinous processes, going on in the human body.

And, as the mechanical microscope of physical science cannot reveal the why and the wherefore, let us, for a brief moment, disclose some of the wonders that declare their existence, when subjected to the penetrating alchemical lens, of the inward spirit. The first thing that intrudes itself upon our notice, by virtue of its primary importance, is the grand fact of biogenesis—life emanating from life. We perceive every external form to be the physical symbol of a corresponding degree of spiritual life; that each complete plant represents a complete cycle, state, or degree of interior existence; that it is made up and consists of countless millions of separate atoms of life; that these atoms of spiritual activity are the real instigators of the life and motion of corresponding material atoms; that they ever obey the Divine impulse of co-operative unity, in their chemical, as well as their spiritual affinity. Consequently, everything in the form of material substance must be, and is, but the means for the phenomenal expression of incarnating spirit; the organism of man, a tree, a plant, or an animal, being no exception to this Divine, omnipresent law of creative life.

To the true Alchemist there can be no mystery surrounding the wonderful phenomena mentioned in the work we have quoted, in plants extracting from the same rocks, soil, and air, qualities so manifestly different—deadly poisons, healing balsams, and pleasant aromas, or the reverse, from the same identical plant foods. Nothing is more wonderful or mysterious, than, the same alchemical processes, which, are hourly being enacted within our own bodies. From the same breath of air and the same crust of bread do we concoct the blood, the bile, the gastric juice, and various other secretions; and distil the finer nervous fluids, that go to build up and sustain the whole of our mental and dynamic machinery. It is the same ancient story of the atoms; each part and each function endowing the same inorganic chemicals with their own spiritual, magnetic, and physical life-qualities, by what appears, to the uninitiated observer, a miraculous transmutation of matter, but which is, in reality, the evolution of organic form from inorganic materials, in obedience to the Divine law of spiritual progression. Who could

stop with exact science? For, when we come to consider the apparent mysteries of life and growth by the aid of this alchemical light, the shadows flee, and all the illusions of Nature's phenomenal kaleidoscope vanish before the revelation of the underlying spiritual realities. We know that the plant, being the physical expression upon the material plane of a more interior life, endows its outward atoms with their peculiar qualities. THESE QUALITIES ARE NOT DRAWN DIRECTLY FROM THE SOIL; the soil only becoming the medium for their complete or incomplete expression, as the case may be; i.e., supplying the necessary inorganic atoms. Hence, the deadly qualities of aconite, and the generous life-sustaining qualities of the nutritious vegetable, BEING SPIRITUAL LIFE ENDOWMENTS, conveyed to the material substance, abstracted from the soil and withdrawn from the atmosphere, are no mystery; their effect upon the human organism being exactly that, which is produced by their spiritual affinity or antipathy, as the case may be. And this also shows and explains, why purely inorganic chemical atoms, though they be exactly the same as the organic substances, from a strictly scientific standpoint, YET FAIL TO SUPPORT LIFE, because such chemical equivalents lack the organic spirituality of the interior life, which alone, gives them the power and function to support the same. They fail to fulfill the requirements of the alchemical law of life for the support of life—in other words, biogenesis.

And, too, this inorganic life may be parted from the plant or vegetable, if it be too long severed from the medium which transmits the spiritual life, from the inorganic world to that of organic matter. Vegetables, fresh from the ground, or parent stem, retain this life if at once prepared for food, if not overcooked, which is so often ignorantly done. This is the secret of sustenance from foods. Nature's perfected fruits and vegetables are overflowing with the life-giving essences, and, if eaten direct from the tree or parent stem, that life is not lost, but transmitted to our organisms, and replenishes the wasting system with a living life. Much less of such food is required to completely satisfy and nourish the body than if the life had partly departed or been destroyed.

Briefly stated, then, everything within organic Nature is the expressional symbolic manifestation of spirit; every form being a congregation of innumerable atoms of life, revealing their presence in material states; each organic form, or, rather, organism, evolving under the central control of some dominating Deific atom or soul, which, by virtue of past incarnations and labors in its cycle of evolution, from the mineral up to man, has achieved the royal prerogative to rule within its own state. Man being the highest representative form—the grand finale in the earthly drama—sums up and contains within himself everything below, and THE GERMS OF EVERYTHING BEYOND, THIS STATE. He is truly a microcosm, and represents in miniature the grand Cosmic Man of the Heavens. Every living force beneath him corresponds to some state, part, or function, which he has graduated through and conquered, and which, in him, has now become embodied, as a part of his universal kingdom. Consequently, all things are directly related to him, in the grand universal unity of spiritual life.

This cannot be realized and comprehended by the physical man, nor conveyed to his outer senses by the physical sciences. He must bring into active use the inner man, the real being, which inhabits and controls the outer organism, and through its instrumentality, understand the interior source and workings behind the phenomena of manifested being. So we see that, exact science cannot take us far, yet, it is a mighty factor, in the evolution of the microcosm Man, and in consciously relating him to the Infinite Macrocosm—God, Spirit, All.

CHAPTER VIII. ALCHEMY-PART II

Paracelsus, the most celebrated of the alchemists of the Middle Ages, thus mystically speaks of his art:

"If I have manna in my constitution, I can attract manna from heaven. Melissa is not only in the garden, but also in the air and in heaven. Saturn is not only in the sky, but

also deep in the ocean and Earth. What is Venus but the artemisia that grows in your garden, and what is iron but the planet Mars? That is to say, Venus and Artemisia are both products of the same essence, while Mars and iron are manifestations of the same cause. What is the human body but a constellation of the same powers that formed the stars in the sky? He who knows Mars knows the qualities of iron, and he who knows what iron is knows the attributes of Mars. What would become of your heart if there were no Sun in the Universe? What would be the use of your 'Vasa Spermatica'[*] if there were no Venus? To grasp the invisible elements, to attract them by their material correspondences, to control, purify, and transmute, them by the ever-moving powers of the living spirit—this is true Alchemy."

[*] Astral germs of subjective life forms:—it is the latent, "to be".

Thus, in a very few simple words, we find this master of the art revealing the whole arcana of that mysterious science, which has for its chief object and goal, the discovery of the "philosopher's stone," which confers upon its fortunate possessor the blessings of immortal youth. Therefore, we cannot possibly do better in the commencement of our present study than, to minutely examine each particular sentence and endeavor to discover his true meaning, which, like all mystical writing, is so apparent, yet cunningly concealed, as to excite the student's admiration.

"If I have manna in my constitution, I can attract manna from Heaven." The manna here spoken of does not specify any particular thing, but is of universal application, and is simply used as an unknown quantity, like x, y, z in mathematics. But, ever since the days of Paracelsus, half-initiated mystics and bookworm occultists, have endeavored to discover what this manna really was. Some, the more spiritual, were of the opinion that, it was spiritual power, or purity of spirit; others imagined it to mean special magnetic qualifications, similar in nature to the so-called gifts of modern spiritualistic media. The concealment of the truth is unique, and consists in its very simplicity; and, when

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correctly expounded, should read: "I am the microcosm, and all the visible and invisible universe dwells within me, so that whatsoever power I have in my constitution, I can attract its correspondence from Heaven." Paracelsus must have smiled to himself when he wrote "If I have manna," etc., because his whole writings strive to prove man the miniature of Deity. Further along, he explains himself by pointing out the real Law of Correspondence, thus: "Melissa is not only in the garden, but also in the air, and in Heaven. Saturn is not only in the sky, but also deep in the ocean, and Earth." The illustrations are beautiful, The life of the plant, the "anima floralis," pervades the atmosphere and the interior states of spiritual life, where it becomes in the highest degree beautiful, and beneficial to the soul. A reference upon this point to "The Light of Egypt" Vol., I, may not be considered out of place. Upon page 74 it is written: "The flower that blooms in beauty, breathing forth to the air its fragrance, which is at once grateful to the senses and stimulating to the nerves, is a perfect specimen of Nature's faultless mediumship. The flower is a medium for the transmission to the human body of those finer essences, and of THEIR SPIRITUAL PORTION TO THE SOUL; for the aroma of the flower is spiritualized to such a degree as to act upon the life currents of the system, imparting to the spiritual body a nutriment of the finest quality."

Thus, here is where the knowledge of the alchemical attributes of plants, as applicable to man, can be most beneficially utilized. Plants and flowers, whose attributes and aromas harmonize with the complex organism of man, should be selected for the house and garden, for, they are mediums to transmit the finer essences and aromas to the spiritual constitution of man; the plant to the physical, and the aromas and essences of the flowers to the soul.

Antipathies in plants and flowers would bring a similar evil influence, as the discords of the antagonistic human magnetism. It would not be so apparent, but more subtle, yet nevertheless effective in result.

Our attention is next drawn to the planet Saturn, which, we are informed, is not only shining in his starry sphere of the heavens, but is also buried in the ocean depths and embodied in the stratas of the earth. It is almost needless to add that, our author refers to those substances naturally Saturnine in their quality of life and expression, such as lead, clay, and coal, among the minerals, and various deadly plants among the flora, the chief of which is the aconite or monkshood, so significant of Saturn and the isolated, monkish hermit. After some repetition, in order to impress the truth of correspondences, our author exclaims: "What is the human body but a constellation of the same powers that formed the stars in the sky?" Truly, what else? for, "he who knows Mars knows the qualities of iron, and he who knows what iron is knows the attributes of Mars." Could anything be plainer? We think not.

From the foregoing, which a long experience and much critical investigation and research have demonstrated as true, we cannot avoid the conclusion that Alchemy, equally as well as every other science, religion, or system of philosophy formulated by man, resolves itself, ultimately, in all its final conclusions, into the one universal parent of all wisdom.

ASTROLOGY, the Science of the Stars, in unison with the Science of the Soul, was, and still is, the one sublime center of real learning. It constituted the sacred fountain of living waters, from whose placid depths there rayed forth the Divine revelations of man, his whence, where, and whither; and under the careful conservation of a long line of gifted seers, it shone forth to the sons of men, as the sacred Hermetic light in the Astro-Masonic wisdom of Egypt's ancient priesthood.

It is not lost to us to-day. The same book lies open before us that faced our ancient forefathers. It is standing out clear and distinct, waiting to be read by the sons of men. We can learn its language, and from its pages, we ourselves can read our relation to

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God and our fellowman. Shall we not heed the whispering intuitions of the soul and place ourselves in conscious rapport with the whole?

This sublime Book of Wisdom was written by God Himself, to convey to His children the knowledge of His powers, attributes, and relation to all creative life. We cannot see that Divine Spirit which we call God. No; but as long as the finite form exists as such, we will have the spirit's manifestations to learn from. Never will the Book of God be closed to the searching eye of the soul. There will always be presented to his vision lessons to study, and practical experiments to perform, to lead the soul into deeper mysteries. Until man fathoms his own universe, he cannot understand God. "Know thyself" is as applicable to-day as when the famous, immortal and mystic utterance was inscribed on the porch of the temple at Delphi.

Before this wonderful, divinely elaborated, but complex system can be fully realized, it is necessary that the student should comprehend, very distinctly, the two states of existence, the internal and the external, and become familiar with the laws of correspondences. And it seems strange that of all Sciences, that of medicine should have so completely failed to grasp this living truth, since every atom of medicine administered, invariably acts upon this alchemical principle. When the human organism has become discordant in some of its parts, it is because the interstellar vibrations have aroused various states within the human kingdom into a condition of rebellion against the supreme will. Man's ignorance favors such seditious movements, and his general habits and code of morals stimulate them to undue activity. The final result is disease—disorganization of the parts and functions, and those medicines corresponding TO THE SAME FUNCTIONAL DEGREE OF LIFE WITHIN THE GRAND MAN, cure the disorder, when administered properly and IN TIME, whereas, if given to the perfectly healthy organism, THE ATOMS PRODUCE SIMILAR SYMPTOMS TO THE DISEASES THEY ALLEVIATE, because it is their mission to either subdue or be subdued, and when disease prevails the medicinal atoms, acting in unison with the

natural parts and functions they affect, conquer or subdue the inharmony, and vice versa, as before stated. In all cases of disease and medicine, it is a simple question of A WAR BETWEEN THE ATOMS, and, therefore, the most potential forces within Nature are always at the command of the true Alchemist, because he knows bow and when to select his fighting forces, and when to set them in motion, for the best results.

Hahnemann, the founder of the Homeopathic system, has approached THE NEAREST to this alchemical truth, and as a consequence, we find it is in actual practice, the most natural, scientific, and successful system of medicine, yet given to the world; based, as it is, upon the well-known law of affinites, "Similia similibus curantur," "like cures like," being a very ancient axiom in the astrological practice of physic.

Bulwer Lytton, who had become thoroughly convinced of the great value and importance of uniting ancient Alchemy with modern medicine, makes the hero of his immortal story declare: "All that we propose to do is this: To find out the secrets of the human frame, to know why the parts ossify and the blood stagnates, and to apply continual preventives to the effects of time. THIS IS NOT MAGIC; IT IS THE ART OF MEDICINE, RIGHTLY UNDERSTOOD."

It is a fact that, the molecules of the body are all changed within twelve months; that every cell in the human organism is born and grows to maturity within that space of time. Nature is absolutely impartial. She draws from the atmosphere that she may reproduce a fac-simile of everything she finds upon the surface of the body. So, if there be a sore, or festering ulcer, the atoms which are thrown off attract similar atoms, so as to reproduce the ulcer or sore, and thus prevent the disease from getting well of itself until it has worn itself out.

Further, every vein and canal throughout the entire body, from youth to maturity, is being coated with carbonate of lime, or lime in some form. The coating of the walls of the veins in such a manner, prevents the free circulation of the living matter; then, the

real vitality of the food which we eat, is simply passed off through the pores, or through the bowels, or through the system, because it is unable to penetrate through the lime.

If that prevention which produces old age can be attained, then physical youth will continue.

The first step to take is to dissolve the lime in the body. Drink nothing but distilled water, in either tea, coffee, or any other form, and drink freely of the sweet juices of the grape and apple.

The food that we eat contains lime in a living form, and it is the living lime we need to build up the living bones, for the lime and the magnesia that we take in the water is crystallized dead mineral, possessing no responsibility of life, and the lime in our food is quite sufficient for all purposes. For everything we take in excess, Nature makes us pay the penalty.

The first principle of long living is to keep all channels of the body perfect and free from coatings of lime.

The second is that of youthful ideals of the mind. The soul never grows old.

The third principle is dynamic breathing, which is storing up the oxygen in sufficient quantities, to supply the tissues with sufficient fuel, for combustion.

These three principles, acting in unison, contain the true basis of physical life and a means of long living. Old age is simply the petrifaction of the body through lime, and the incorporating of erroneous thoughts into the organism.

It is the true Alchemy of human existence, and the preventives, in each and every case must contain the spiritual correspondence to the cause they seek to remedy; and, though the followers of Hahnemann base the whole of their procedure of treatment upon their master's fundamental law of "Similia similibus curantur," yet, there may be a few

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rare cases wherein, this undeviating method would not apply with the required effect. In such a case, the Alchemist would resort to the well-known law of opposites, and base his treatment upon the dogma of "Contraria contrariis curantur," so long the pet theory of the Allopathic school. They work upon the hypothesis that, like attracts like, and, if disease exist, those elements must be administered to set up the vibrations that will produce the polar opposite. If the body was racked with pain, those medicines would not be given that would create or increase similar conditions, but, their antipathy would be introduced into the system or applied locally to extinguish the foe.

So long as mankind remain within the semicrystallized state of soul development, so as to require the aid of external forces to support the human throne within its earthly temple, mercenary troops will exist to supply these supposed supports.

Unquestionably, the astrological law is the true system of medicine, which treats disease by sympathy or by antipathy, according to the nature of the case, and the efficacy of the remedies at hand. This method is the only natural one, and has been thoroughly demonstrated by the numerous "provings of drugs" under Hahnemann's law.

Happily, the time is not far distant when, the incarnated spirit will be able to use its own slumbering forces, and subdue all suffering and symptoms of disease in their very first inception, by virtue of its purer life and the dynamic potencies of its own interior, spiritual thought. Already, mental therapeutics is taking an advanced position among liberal, progressive minds, and nothing demonstrates so clearly and forcibly the grand, alchemical law of life-growth and decay, as the imponderable, invisible forces, which, constitute the materia medica, or remedial agents, of mental, magnetic, and spiritual healing.

Perhaps the most recondite subject connected with the healing art divine is, the modus operandi of medicinal action, upon the human body. A subject so simple and self-evident to the Alchemist, remains a profound mystery to the educated physician of the

medical college; so much so that, we are tempted to ask of them: "Can you explain the modus operandi of drugs?" Dr. William Sharp, one of the most advanced physicians of the Homeopathic school, in one of his well- known "Essays on Medicine," says: "In respect to the manner of action of drugs we are in total darkness, and we are so blind that the darkness is not felt. KNOWLEDGE OF THIS KIND CANNOT BE ATTAINED; it is labor lost and TIME wasted to go in search of it. True, hypotheses may be easily conceived; so may straws be gathered from the surface of the stream. But what are either of them worth? There is this difference between them—straws may amuse children, and hypotheses are sure to mislead physicians."

It is when the Occult Initiate observes to what helpless conditions the practice of medicine has fallen, that, he would, if be could with any possibility of success, implore the angelic guardian of the human race to open the spiritual sight of men, that they might see, as he sees, the Divine relationship, and spiritual correspondence, of everything in the wide universe to man.

Nature's laws move slowly and imperceptibly, yet surely and exact, and the time will certainly come when man will be forced into consciousness of these laws, whether he will or no. Nature is no respecter of persons, and those who will not move and progress, in harmony with her laws of advancement, must, of necessity, pass out with the old.

Alchemy, as it relates to the healing art, is the most noble in its object and beneficial in its effects, of all the many subdivisions of the sciences, because, it alleviates the pains and morbid afflictions of suffering humanity. We have given quite sufficient of its astrological aspect in the second part of "The Light of Egypt," Vol. I, wherein the four ancient elements are translated into their chemical correspondences of oxygen, hydrogen, nitrogen and carbon, which still constitute the four primary elements of the most advanced chemistry to-day. They enter more or less into every organic form and substance, which is known, in various combinations and proportions. The human

organism is principally composed of them; so, likewise, is the food that supports physical life, and the air we breathe is but modifications of the same atoms.

As man's constitution embraces a microscopic atom of all the essences and elements, corresponding to the whole; so does the air; and much, that we depend upon our food to supply, can be extracted from the atmosphere by breathing. Every breath we breathe is new life, or death.

Herein is the secret of success or failure, in certain localities, and under certain conditions. If we have iron within us, could we extract or attract iron from Saturn's district? Or, if the element within us could attract gold, could we obtain it from the coal fields?

Therefore, it is only natural that the medical remedies we employ to restore the organism, when afflicted with disease, should group themselves into similar correspondences, and so, in a general sense, we find them; for we note that the brain, the circulation, the lungs, and the stomach, are the four chief citadels of the body; the heart, of course, representing the center of circulation. And this also explains, further, if that were necessary, why the principal remedies of the homeopathic system are so speedy and direct in their action. The four principal drugs, which stand as representatives of their class, are aconite, belladonna, phosphorus, and pulsatilla. These represent the quadrant, for light is not more nicely adjusted to the eye, nor sound to the ear, than aconite to the circulation, belladonna to the brain, phosphorus to the lungs, and pulsatilla to the stomach; while ramifying in the seven directions indicated by the seven primary planets, we find stimulants, tonics, narcotics, nervines, alteratives, cathartics and diuretics, as the natural material correspondences thereof.

That we assign phosphorus to the lungs may appear startling to the orthodox student, especially when, he calls to mind the fact that phosphorus has long been recognized in medical science as a brain food and medicine. Anticipating such mental questions, we

reply that in medicine, from the alchemical view, we are occupying a wholly different standpoint; i.e., the power of controlling the functional action of the body, in this view of the case, and the fact that, the lungs and the brain are in the most perfect affinity, there will remain no mystery upon the subject.

The Alchemy of stones and gems attracts our next attention. Affinites and antipathies to the human constitution, are to be found in these crystallized representatives of the subtle, invisible influences emanating from our planetary system. They are the mediums for the transmission of corresponding attributes and influences of existing powers and potencies, and if carried or worn upon the person, they will bring the person in direct rapport with the invisible forces within the universal system.

Here again Hahnemann's scientific philosophy would prove effectual, that "Similia similibus curantur." Would the fiery influence of a topaz attract much from the realms of a chrysolite? Or, the crystallized, airy forces of a sapphire be a suitable medium for the earthly forces of a jasper?

Gems and stones are dead or living realities. They live, slumber and die, and have their potent existence as do the organic forms of matter. They are, usually, imbued with the vivifying spark of Divinity, and shine forth and exert their influence through the magical powers attracted to them from the forces of Nature. A real, living entity abides within them that can be seen by the clairvoyant vision, and to the trained student in Occult lore, this entity can be made to become an obedient servant, giving warning of the approach of danger, impressions of men and things, and warding off discordant influences surrounding us; or that, which we may contact from the magnetic and personal environments in our relations in the social world; or that which may be projected to us from the invisible realms of life.

Think you the pryamids would be intact to-day, if the stones from which they were built had been promiscuously selected? They were chosen by Adepts in the knowledge

of the Laws of Correspondence and antipathy and affinity. The sphinx also stand as monuments to the heights of wisdom that man can attain.

Metals also can be followed out on the same lines as the gems and stones.

Much as we would like to continue, we are compelled to bring this discourse to a close, even though in doing so we must of necessity omit much of vital interest to the student. We will, therefore, only add that the seven basic metals stand as the crystallized representatives of their respective groups: Gold for the Sun, Silver for the Moon, Tin for Jupiter, Copper for Venus, Quicksilver for Mercury and Lead for Saturn. Each finds it own sphere of action within the temporary abiding place of the human soul on earth—the physical body. So, likewise, the twelve constellations and their corresponding talismanic gems, representing in their glittering array the anatomical Zodiac of the human frame, and typifying the spiritual quality of the atoms, there congregated, in every degree of life. These, and a thousand other mysteries, had we the time, might be unfolded to the student's view with considerable advantage, but we are compelled to refrain. The philosopher's stone is near at hand. Seek it not in remote spheres or distant parts of the earth, for it is ever around you and within, and becomes the golden key of true wisdom, which prepares the soul for its higher life and brighter destiny. It is the still, small voice of the awakened soul, that purges the conscience from suffering, and the spiritual body from earthy dross. It is that, which treasures not the corrupting, delusive wealth of Earth, nor the transient powers of mammon, but garners the fruits which spring from the pure life, and treasures the jewels of heaven. Vainly will you seek for this stone of the wise philosopher amid the turmoils, sufferings, and selfishness of life, unless you accept your mission upon earth as a duty, delegated to the soul, from Heaven. Eschew the evil thereof, and hold fast that which is good. To do this, means to expand with the inward truth and become one of the "pure in heart," in which blessed state, the magical white stone, conveying A NEW NAME, reveals the living angel within, to the outward man. Then, and then alone, doth he know the Adonai.

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Such are the Divine, spiritual principles upon which the higher Alchemy of life is based. They seek only to establish a Divine, conscious at-one-ment between the angel, the man, and the universe, and to this end, we conclude with the words of the immortal Paracelsus:

"To grasp these invisible elements, to attract them by their material correspondences, to control, purify, and transmute them by the ever-moving powers of the living spirit, THIS IS TRUE ALCHEMY."

CHAPTER IX. TALISMANS

Words are the symbols of ideas, and bear the same correspondence to the physical brain as matter does to spirit, a medium of expression, and are subject to continual change in their application and meaning, in exact proportion to the changing mental and moral condition of the people. As the planet, as well as man, is continually progressing, so must there be a higher and nobler conception of ideas. Hence, words or expressions must change, to convey the progressive spirit, that is constantly taking place. Therefore, it is always interesting, as well as valuable, for the Occult student to go to the root of each word connected with his philosophy, in order to learn the real sense in which the word was used by the ancients, from whom his mystic lore has descended. The true meaning, as well as the words themselves, have become as mystical as the lore itself. Hence, each student must commence as a beginner in any foreign language, which he does not at present understand. In following this method of procedure he will, at least, escape the dense and interminable confusion of modern opinions upon subjects of which the writers thereof, are partially or wholly ignorant.

No better illustration of this can be afforded than by the word "Talisman," derived from the Greek verb "teleo," which means, primarily, to accomplish, or bring into effect. But, in its real, and therefore higher, sense, it means to dedicate, consecrate, and initiate

into the arcana of the temple mysteries. But, in the present day it means a piece of imposture, connected with some magical hocus pocus of the ignorant and superstitious mind, a vulgar charm, that is supposed to bring the owner thereof some material benefit, irrespective of his mental, magnetic, and moral condition, "and," says the learned Webster, after describing his idea of such things, "they consist of three sorts, astronomical, magical and mixed." But in what sense the "astronomical" differed from the "magical" we are not informed, nor is any light thrown upon the peculiar nature of that class designated as "mixed." In fact, the lexicographer so mixes up his definitions that, we are unable to distinguish anything in particular, but his own individual ignorance.

So it has become, in every branch of learning. Words and their meanings have become so mixed in their use and application, that, the world is full of discords and misunderstandings, which lead into dissensions and contention, among all schools of thought, sects, and isms; and lastly, though not the least serious, it has reached into the close relations of the human family.

All writers and speakers, as well as the readers and listeners, should acquaint themselves with the derivation and meaning of words.

The fact stands very clearly defined that, Talismans are confused in the minds of the present generation with magical charms, which depend for their effects, upon the power of the idea or thought, which the formulating magician impresses upon the substance of which they are composed. If the magical artist be expert, and endowed with an exceedingly potent will, his charm may become very powerful, when worn by the person for whom it was prepared. But, if this one grand essential be lacking, no amount of cabalistical figures and sacred names will have any effect, because, there can be no potency in symbols apart from the ideas and mental force they are capable of arousing in the mind of the maker. Solomon's Seal is no more powerful, when drawn upon virgin

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parchment, with a weak will, or in a mechanical state of mind, than a child's innocent scribbling upon its slate. But, if the artist realizes the mysteries symbolized by the interlacing triangles, and can place his soul en rapport with the invisible elements they outwardly represent; then, powerful effects are often produced.

I am sorry to say that, the knowledge of charms is not confined to the creation of beneficial talismans. Its perversion has led to the diabolical practices of the Voodo and Black Magician, whose work is wholly, either for gain or revenge. Nothing, but the most extreme selfishness lies beneath such immoral practices, but, as there must be a light to reflect a shadow, so a charm must follow a talisman. Magical charms, then, are simply natural objects, possessing but little active virtue in themselves, but, owing to the mediumistic nature of their substances, are endowed with artificial powers, of temporary duration, by virtue of the idea and thought impressed upon them, through the mental magic of the maker; and in this sense, a charm must be clearly distinguished from "teleo," the Talisman. The very names suggest their difference, and, above all other men, students in Occultism should strive to become thoroughly educated in the true sense of the term, MEN OF LETTERS, by virtue of (as Ruskin calls it) "the kingship of words." "Charm" is derived from the Latin "carmen," a song that fascinates, and means to control by incantation, to subdue; while Teleo concerns the secret powers and wisdom of consecration and initiation. It is because of modern misuse of antique terms that, we have considered this somewhat lengthy explanation necessary, in order to clear away the accumulated debris of the ages, from the true foundation of our present study.

A Talisman is a natural object, containing the elemental forces of its own degree of life, in a state of intense activity, and capable of responding to the corresponding quality of life, OUTSIDE OF ITSELF, that emanates from the same spiritual state, either by sympathetic vibration or antagonistic currents, the nature, power, quality, and degree of life, which the various natural objects represent, being a part of the temple curriculum

of initiation. Hence, the name, by which the latent power of these natural objects became known, was in strict harmony with the facts involved.

In order to prevent any possible misconception upon the subject, let us briefly restate the definition in a different way: A Talisman is the exact antipodes of a charm. This latter is the artful and temporary result of man's mental power; the former, the natural production of universal Nature, and as permanent and enduring as the substance of which it is composed, DURING THE PRESENT CYCLE. And yet in some sense, it may be quite correct to say that, a Talisman ACTS LIKE A CHARM, and vice versa, that charms ACT LIKE A TALISMAN, providing that, the real vital difference between them, is maintained in the statement.

Now that we have our subject clearly defined, let us carefully examine HOW AND IN WHAT SENSE a given natural object becomes Talismanic, for it must appear self-evident to all that, one and the same substance cannot constitute a Talisman for everyone, and for everything. They must naturally differ, as widely in their nature and quality, as mankind differ in physical, mental, moral, ethical, and temperamental, development. And, yet, though, man may so differ from his fellow man; the ignorant Esquimau, killing seals in his kayak, may belong to the same spiritual quality of life as the Harvard professor, who obtains his subsistence by daily discourse upon the sublime harmony of the infinitely small with the infinitely great, throughout the manifested universe of matter, and wherever we find this KINSHIP of the spirit, we shall find the same identical Talisman acting alike upon each, whenever they shall come en rapport with it. Mental, moral, and physical development, never alter the real nature of the internal man. Culture only brings to the surface, into active use, the latent possibilities lying concealed within the human soul. It only allows him to exercise his functions upon different planes, and with different effect.

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Every natural department of Nature corresponds to some peculiar specific quality and degree of life. These have been divided, for the sake of convenience, into four primary groups; and each group again subdivided into three, corresponding to the four cardinal, four succedent, and four cadent houses, of the astrological chart; therefore, the twelve signs of the Zodiac; these constituting the Cycle of Necessity within physical conditions, wherein, the ever-measuring or decreeing tidal flow of life from solar radiation throughout the year, represents the twelve groups of humanity, of lower animated Nature, of vegetation, and crystallized gems. Every human being is ushered into the world under the direct influx of one or more of these celestial divisions, and by virtue of the sign occupying the horizon at the moment of birth, absorbs such influx, and becomes endowed with a specific polarity, by virtue of which, lie ever afterward, during such expression within physical conditions, inspires with every breath, that specific life quality from the atmosphere, corresponding to the same degree of the universal spirit. Consequently, that gem, or those gems, representing and corresponding to HIS HOUSE OF LIFE, become to him, a Talisman, because of their relationship—their spiritual affinity. These are all given in the second part of Vol. I. THE METALS never become Talismanic, because of their comparatively negative degree of life, and for this reason also, they make the most powerful charms. Certain combinations of metals, and in proper proportions, increase the potency and magnetic influence of a charm; and here, too, the laws of antipathy and affinity come into practical use.

A true expert will know his metals, or metal, and his client, before commencing his magical work.

Those persons who derive most virtue from a Talisman are those who belong to the most sensitive, or interior state, within such degree of life, and who are dominated by one sign only. Thus, if we find one sign occupying the whole of the House of Life, or practically so, as when the first face of a sign ascends, we may be sure, other things not interfering, that such a native will receive great benefit from wearing its Talismanic

gem. If a person of good intellectual powers and sensitive spirituality, be born when the lord of the ascendant occupies the RISING SIGN, as, for instance, Mars in Aries, or Sun in Leo, we may be sure that, the Talismanic gem, in their case, will be exceedingly powerful, because, all the Astro-physical conditions are then most favorable for the expression of natural forces, and, if worn upon, or near that part of the body which the sign rules, the power and influence is more powerful and beneficial.

In wearing them, take them to you as a part of yourself, a part of your higher self, a thing to be heeded, listened to and obeyed. They will usually make their presence most pronounced when something arises to disturb the harmonious vibrations that naturally and quietly go on between the person and the interstellar spaces above. They are like the sensor and motor nerves—they never make their presence known, except, when danger encroaches.

Having explained in what sense gems become talismanic, we have now to disclose the modus operandi—THE HOW.

The gems contain the life quality of their own astral nature. Man, as a higher expression, only, of the same universal biune life, contains the same. Like two electric currents, MAN, THE POSITIVE POLE (comparatively), attracts unto himself THE MINERAL LIFE OF THE GEM, which thus, becomes the negative pole. A complete circuit is formed and maintained, as long as they remain in contact. Gems belonging to a different quality of life, not being en rapport with his astral state, have no good effect, because, no current flows between them. Thus, the Talisman acts in unison with the psychic, or soul-principle, of man, aiding the organism to sustain health, stimulating the mental perceptions, and spiritual intuition, and affording in a remarkable manner, many premonitions of coming danger, when the individual is sufficiently sensitive to perceive them. And now, per contra, as there are gems that act in sympathy with man, there must be, and in fact are, gems that act upon contrary principles; i.e., antagonistic, and these

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belong to purely antagonistic elements, as Air to Earth and Fire to Water, unless the native be born under BOTH forces, as Mars in Cancer rising, or the latter part of one sign and nearly the whole of another of an opposite nature, occupying the ascendant. Such natives are pure neutrals, and such might wear the gems that belong to the most powerful planet of the horoscope, or that triplicity holding the most planets; then, they are usually combined, the planet and the triplicity.

There are, of course, innumerable substances, more or less, capable of talismanic virtue to particular individuals. But those gems, and similar ones, that are given in "The Light of Egypt," Vol. I, are the most powerful. To these may be added the opal, under Scorpio; the garnet, under Aries; and the turquoise, under Cancer, when Saturn is therein; and the aquamarine, under Pisces; and among the temporary talismans of vegetation we may add that, the young shoots, bearing the flower and seed vessels, are the portions of chief virtue, and the young shoots of trees. These are often used in locating mines, wells, oils, etc., that lie hidden beneath the surface of the earth, and in the hands of a negative, sensitive person, seldom fail to reward the searcher with success. These should always be gathered when their ruling correspondences are rising, or, BETTER STILL, CULMINATING UPON THE MERIDIAN. These will be explained in the chapter on The Magic Wand.

We have now reached the limits of our present study, and have only to state that all gems, like the human organism, are in one of three conditions: alive and conscious, asleep and UNCONSCIOUS, or dead and powerless. These conditions can only be discovered, in stones, by the trained lucid or the instructed neophyte. Stones that are sleeping require to be awakened. This, also, can only be done by the trained student or Adept. Those that are dead, are USELESS as Talismans, no matter how beautiful they appear as ornaments.

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Gems and stones are also sexed, and those who wear them would receive the best effect if they should wear those of opposite sex, although either is powerfully potent in their influence upon the individual. How very ignorant the children of men are, of the subtle, silent, yet obedient servants, that everywhere, surround them. Here, again, that Divine spark, which lies embedded within the crystallized forces of Nature, is exerting its subtle, spiritual influence, in making man's very selfishness, and love of ornament and show, a means, to bring forth these silent monitors, knowing ere long that, their true power and potency will be known, and consciously utilized by him, as potent factors in his soul's evolvement and physical development.

The twelve representative gems within the cold stratas of matter, stand as the material representatives of their stellar counterparts in the sky, and constitute the beautiful, glittering, but crystallized, Zodiac of man's physical anatomy.

CHAPTER X. CEREMONIAL MAGIC

The above title has been selected, chiefly, because, in most works treating upon magic we find it wrongly used, and therefore, take the opportunity of explaining the matter, for, there were no such terms in the vocabulary of the ancient Magi.

It is unfortunate, that, words of ancient origin are not more carefully used, and that, we should attach so many different meanings to the same word. The terms "ceremony" and "ceremonial" are nothing more nor less than, what that eminent critic, John Ruskin, would designate as "bastards of ignoble origin," which, somehow or another, have usurped the places of "rite" and "ritual." The word "rite" has descended to us from the Latin "ritus" of our Roman ancestors, and they received it from the more ancient "riti" of the Sanskrit, the Greek equivalent of which is "reo," and means the method or order of service to the gods, whereas, "ceremony" may mean anything and everything, from the terms of a brutal prize fight to the conduct of divine service within the church. But,

no such chameleon-like definition or construction can properly be placed upon the word "rite," for it means distinctly, if it means anything at all, the serious usage and sacred method of conducting service in honor of the gods, or of superiors, and requires the attendance of the prophet or priest, or some one duly qualified to fulfill such sacred functions for the time being. The ritual of magic, then, is the correct title of this present study, and as such, we shall, henceforth, term it as we proceed with the course.

Man is especially, and above all creatures, an organizing force, and when to this fact, we add the most interior and powerful of his sentimental instincts—veneration for the powers that be, and for the higher, invisible forces of Nature, his "religiosity," as it has been aptly termed, we cannot wonder that, the earliest races of which we possess any record are chiefly distinguished for their imposing and elaborate religious rites. In fact, it is to the stupendous temples and a colossal sacerdotalism, that, we are indebted for nine-tenths of the relics and records which we possess of them. So true is this that, from what we have been able to discover, we are quite justified in asserting that the ancient races were, above all other things, a profoundly religious people. The temple was the center around which revolved all their genius and art, and the sacred edifice became their grandest achievement in architecture, and its high priest the most powerful individual in the state. In fact, it was in consequence of the real power invested in such sacred office that it was so intimately connected with the throne, and why royalty so frequently belonged to the priesthood or exercised priestly functions. And there can be no real doubt, but that, amongst the pastoral and more spiritual races of Earth's earliest inhabitants, the priest, by reason of his superior wisdom, was the first law-giver; and, by virtue of his sanctity of person and elevation of mind became their first, primitive king, a patriarchal monarch, whose scepter and symbol of power was the shepherd's peaceful crook; just as among the ruder nomads of the inhospitable North, we find the greatest hunters invested with the dignity of chief, whose significant symbol and scepter of royalty, upon their Nimrod thrones, was the trusty, successful spear. And the times

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in which we live have bad their full effect upon these symbols, so significant of rule. The monarch has transformed the spear into the less harmful mace, while the Church has added an inch of iron to the crook. Therefore, the former has become less war-like, and the latter less peaceful, and, verily, in actual life we find them so,

The patriarchal sire, head of the tribal household, was the original priest; and the hearthstone the first altar around which the family rites were performed; and from this pure and primitive original have been evolved, through progressive ages, the stately temple and the sacred person of the despotic pontiff; from the sincere prayer the pure aspirations of the human heart and the joyous offerings of fruits and flowers to the invisible powers around them; and from the souls of their beloved ancestors has arisen the costly and complicated ritual of theology. And, if the theologians of to-day really knew the lost, secret meaning of their complicated rituals, and the unseen powers lying behind their external symbols, their anxieties for the continued life of their dying creeds would be turned to new hopes and faith, which could be demonstrated to their equally blind followers; that, that which they were teaching they knew, and could practically use the knowledge given forth in their sanctuaries; and, instead of offering up their supplications to an imaginary, personal Deity, their words, rites, and ceremonies, would take on the form and power that such should command, and they would become truly, what their title really means, a doctor of the soul. Then could they, intelligently, lead and direct the souls of their followers to the path of Christ (Truth), which leads up to salvation; not a vicarious atonement, but gaining the at-one-ment through the individual soul's development to a conscious relation, to that Divine spirit, we call God, where it can say "I know."

Out of those simple gifts, which were the spontaneous offerings of loving remembrance and unselfish charity, have grown the prayers, penances, sacrifices, and servile worship, of sacerdotalism. Out of the paternal consideration and love of the aged sire has evolved the haughty, chilling pride of the selfish, isolated priest, and which

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reflects its baneful influence upon the worshipers at their feet. They have also changed their once sacred, faithful, and reverent, obedience into suspicion and distrust, and with the educated to utter disgust. The light has been extinguished, and priest and people alike are groping about in darkness.

It is strange, yea, passing strange, the amount of human ignorance and folly that is revealed. When we look upon this picture and then upon that, verily we cannot help but ask the question, is mankind really progressing? We know that it is; we are keenly alive to the truth that the Anthem of Creation sounds out "Excelsior"—"move on," but how, and in what way (SPIRITUALLY) we fail to comprehend. The cyclic development of the human soul is an inscrutable mystery.

All the considerations above presented must be thoroughly weighed and understood in order to arrive at the true value of "the dogma and ritual of high magic," as Eliphas Levi terms it; because, amid the vast array of tinselled drapery, the outcome of man's vain conceit and bombastic pride, we shall find very little that can be considered as vital and really essential to the rites of magic. The show, the drapery, the priestly ornaments and instruments, are to the really spiritual Occultist, but, as sounding brass and a tinkling cymbal. That they had, and still have, their legitimate uses, is true, but these uses do not concern magic, per se, nor its manifold powers. They awed the popular mind, and impressed upon the masses a due reverence for the powers that be. They were instrumental in holding the untrained passions of the common herd in check, by a wholesome fear of summary vengeance from the gods, so that this pageantry of magic, the outward priestly show, was more of a politic development than a spiritual necessity, an astute but, philosophical method of enabling the educated few to govern the uneducated many. And it was only when the educational and initiatory rites of the temple became corrupt, and the priest became the persecuting ally of the king—when, in real fact, the priest lost his spirituality in the desire for temporal power and place,

that the people began to disbelieve his professions and rebel against his tyrannical control.

The powers that be, are now wielding their sword of justice, and unfurling the knowledge of freedom and truth to the aspiring mind of man. He has begun to feel his bondage and the yoke of oppression. The words of promise and love, instead of lifting him up to the God he has been taught to worship, bow him down in slavish obedience to his priest. Mankind cannot remain in this mental and spiritual darkness much longer. Already I see the break of day, the dawn of a new life, a new religion; or, rather, the re-establishing of the true, which is as old as Time itself. There is but One Law, One Principle, One Word, One Truth and One God.

The original requirements for the office of priest, and the rites of magic, were, as shown, a primitive, i.e., pure mind; one that had outgrown the lusts and passions of youth, a person of responsibility and experience; and even to this day the priest of the Roman Church is called by the familiar title of "father." And as Nature does not alter her laws and requirements in obedience to the moral development of the race, we may rest assured that the same requirements, of ten thousand years ago, still hold good to-day. You may enter your magic circle, drawn with prescribed rites, and you may intone your consecrations and chant your incantations; you may burn your incense in the brazen censer and pose in your flowing, priestly robes; you may bear the sacred pentacles of the spirit upon your breast and wave the magic sword to the four quarters of the heavens; yea, you may even do more—you may burn the secret sigil of the objurant spirit; and yell your conjurations and exorcisms till you are black in the face; but all in vain, my friend—all in vain. It will prove nothing but vanity and vexation of spirit unless the inward self, the soul, interblends with the outward Word, and contacting by its own dynamic intensity— the elemental vibrations of Nature—arouses these spiritual forces to the extent of responding to your call. When this can be done, but not until then, will your magical incantations have any effect upon the voiceless air.

Not the priestly robes nor magic sword, not the incantations, WRITTEN WORD, nor mystic circle, can produce Nature's response to Occult rite; but the fire of the inward spirit, the mental realization of each word and mystic sign, combined with the conscious knowledge of your own Deific powers—this, and this only, creates Nature's true magician.

Who and where can such be found? Are they so few that the echo answers back "Where and who?" Yet, there are many such upon the Earth at the present time, but the present mental conditions forbid them making their identity known. They would not be recognized and accepted as the TRUE teachers, but reviled and persecuted and dubbed as insane. But silently, they are sowing the seed of truth that will spring up and bear fruit, where and when least expected.

Because evil is so active, truth is not lying dormant. The spirit of God, that Divine spark of Deity within every human soul, never sleeps, never rests. "On and upward" is its cry. "Omnia vincit veritas."

The grand sublimity of man's conception of at-one with the Infinite Father, at-one with the limitless universe of being, at-one with, and inheriting, all the sacred rights and inalienable prerogatives of the ineffable Adonai of the deathless soul, is the only test of man's qualification for the holy office; for, as Bulwer Lytton has truthfully said, "the loving throb of one great HUMAN HEART will baffle more fiends than all the magicians' lore." So it is with the sacred ritual. One single aspirational thought, clearly defined, outweighs all the priestly trappings that the world has ever seen.

The success of all incarnations depends upon the complete unison of VOICE and MIND, the interblend of which, produces the dynamic intonation, that chords with the inward rhythmic vibrations of the soul. Once this magical, dynamic, vibration is produced, there immediately springs into being the whole elemental world belonging thereto, by correspondence. Vocalists who hold their audiences spellbound do so by

virtue of the magical vibrations they produce, and are in reality practical, even though unconscious, magicians. The same power, to a degree, lies in the voice when speaking, the graceful movement of the hand when obeying the will, and the eye rays forth the same dynamic power and becomes magical in its effects.

These powers are exercised more upon the physical plane, and no better illustration can be given, than, the power man is able to exert over the animal when gazing into its eyes.

Here, as well as in incantations and invocations, within the power of the will, lies the success or failure.

At this point it may be asked, what, then, is the use of magical rites, of symbols and priestly robes? We answer, in themselves alone, nothing, absolutely nothing, except the facility and convenience we derive from system, order and a code of procedure. To this may be added the mental force and enthusiasm of soul which such things inspire, just as men and women may feel more dignified, artistic, and refined, when dressed in accordance with their ideas. So may the average priest feel more priestly, holy; and consequently, more powerful mentally; when arrayed in the robes of his office and surrounded by the outward symbols of his power and functions. But, in themselves alone, there is not, nor can there be, any real virtue. The same may be said of the incantations. The words used in their composition are the hieroglyphics of mystical ideas. Therefore, the correct pronunciation of the words or the grammatical construction of a sentence is nothing, if the underlying idea is conceived in the mind and responded to by the soul. Will and motive form the basis of true magic.

One word more and we have completed our subject. Magic swords, rings, pentacles, and wands, may, and often are powerful magical agents in the hands of the magician, by virtue of the power, or charm, that is invested within them when properly prepared;

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but apart from such preparation, by those who know, they are as powerless as unintelligible incantations.

All the foregoing are aids, but if physical manifestations of magical forces be required, there must always be present the necessary vital, magnetic pabulum, by means of which such phenomena are made to transpire; and in every case, to be successful, the assistance of a good natural magician, or seer, is necessary; for without this essential element the whole art, in its higher aspects, becomes abortive.

CHAPTER XI. THE MAGIC WAND

This is the last lesson of our present course that requires a clear definition of the terms employed in the title thereof, for the twelfth, and final study is, perhaps, fortunate in having for its title a word that has not, so far, been misused and distorted from its original sense.

The Magic Wand. The words savor of everything that the young tyro in Occult art can picture to his mind; of the midnight magician and his mysterious, if not diabolical, arts, muttering his incantations, working his gruesome spells, and raising the restless ghosts of the dead. Strange fancies, these, and yet, so corrupt and ignorant have become the conceptions of the popular mind regarding the once sacred Science of the Temple and the psychological powers of Nature, that we very much question, if the ideas above stated were not very similar to the originals of each modern student, before he had become acquainted with the deeper truths—the realities of Occult philosophy.

We will commence our study by a careful investigation of the original meaning of the words Magic Wand, since those who were the masters and originators thereof, are far more likely to know more about them than their degenerate offspring of a later age. Few, comparatively, would believe that the words MAGIC, MASON, and

IMAGINATION, are the present unrelated descendants of the same original conception—THE ROOT IDEA; but such is the case. First, then, we will examine their modern meanings. Magic is the unholy art of working secret spells, of using invisible powers, and holding intercourse with the unseen world of ghosts and demons, by means of enchantments. It also means the expert deception of the senses by the tricks of a conjurer, SO-CALLED hocus-pocus and fraud, and a magician is either an evil-minded, superstitious mortal, fool enough to believe in charms, or an expert pretender and imposter of the first water, who cheats and deceives the people. A mason is the honorable designation of a builder, who works in stone; metaphysically, a member of a semi- secret society, whose sole advantage is social intercourse and standing; who proclaim fraternity and universal brotherhood theoretically and practice the reverse in reality; a man who apes the Egyptian Mason, knows nothing in reality of Hiram, his master; who knows nothing of the starry Solomon or his mystic temple in the heavens, which Hiram built; and who misconceives the import of the three villains, or assassins; and who, further, knows nothing of that wonderful sprig of myrtle:—in short, a Free Mason, speaking generally, is a man who delights in ideals, social equality, secret fraternity, and plays at mysticism; who parades on the Masonic stage and enacts a role he does not understand. The first meaning, that of a builder, is the most correct. Lastly, the imagination is the exercise of mental imagery—the picturings of silent thought.

And now we will proceed BACKWARDS. Imagination is from the word "image," a form, a picture, and has descended to us from the Latin "imago," which, in its turn, was derived from the old Semitic root, "mag." Mason comes to us from the Latin "mass," which means to mould and form, i.e., to build; and the word "mass," through various transformations, was also derived from the root-word "mag." Consequently, originally, there was but little difference in the ancient idea of building pictures in the mind and erecting the mental idea externally in stone. It is from this fact, that, we have to-day Mental Masons, a la the secret orders, and stone masons, who labor for wages. The

Mental Masons have merely lost the knowledge of their art. They should, by rights, be as active and correspondingly useful to-day as their more physical brothers, the masons of stone.

This art would never have fallen into disgrace and disuse, if their daily bread, or material accumulations, had depended upon their efforts in building up the mental, moral, and spiritual attainments, of each other, and bringing their knowledge into more external use, by making the material edifice, the physical body, a purer and more fitting temple, for the Divine soul.

Magic comes from the Latin "magi" and the Greek word "magos," which means wise, learned in the mysteries, and was the synonym of wisdom. The initiated philosopher, the priest, and the wise men, are all of them included in the "magi." Again, tracing this word to its remote ancestor, we find it terminating in the same Semitic root, "mag," but of this strange root no one was able to say much, except that it seemed to belong to the Assyrian branch of the great Semitic race. But quite recently, thanks to our scientific explorers and archaeologists, versed in the mysterious meaning of cuniform inscription; Assyrian scholars now inform us that they have found the hoary, primitive original of it, of magic, magi and imago, etc. It is from an old Akkadian word, "imga," meaning wise, holy, and learned, and was used as the distinguishing title of their wisest sages, priests, and philosophers, who, as may be supposed, gradually formed a peculiar caste, which merged into the ruling priestly order. The Semites, who succeeded the old Akkadian race in the valley of the Euphrates, as a mere matter of verbal convenience, transformed many of the old Akkadian words to suit their own articulation, and "imga" became "mag," and thus "magi." THE BLEND between the Semetic and the older Akkadian race, produced, by fusion of racial blood, the famed Chaldeans. So that we see how old are the words which many of us daily use, but with different meaning. Verily, it makes one feel, when be thinks of magic and its origin, as though he were quite nearly related to the people who honored King Sargon, the Wise, the earthly

original of the mystic Solomon of Biblical tradition. The term Wand is an old Saxon word, which primarily signifies to set in motion, to move. From this we derive our word wander, i.e., to roam, and wandering, i.e., moving and continually restless.

We have now the original, therefore real, meaning of the words Magic Wand; thus an object that sets in motion the powers of the magician, and the magician, an Initiate of the sacred rites—A MASTER OF WISDOM, possessing all the resources that enable him TO BUILD mould, and form; to create in fact, by virtue of his knowledge of the secret powers of mental imagery and the potential use of his own imagination. He is both Mental Mason and learned philosopher.

The student may doubtless ask, why all this care and labor regarding mere definitions? We reply that, it is because, the real meaning of the words we have purposely selected for the title of our studies are, in themselves, a far better revelation than we could possibly have written. Originally, ideas and words were related as absolute expressions or correspondences, of each other. This is not so now. As the different races became interblended, the purity of both language and morals retrograded, and the people grew more to the external. The intuitions and spirit were compelled to retreat, giving place to only the intellectual and mental. The blending of the languages gave birth to many words wherein different meanings were transmitted; hence, the trouble arising to-day over the numerous interpretations of a single word.

Hybrid races have no such thing as a pure language. Their ideas and language, like their blood, is badly mixed up, confusing, and unsatisfactory, so far as the real meaning of the words are concerned. For this very reason we find so many different meanings for the same word; and also for this reason, we cannot formulate a legal enactment in the Anglo-Saxon tongue that, a learned lawyer, versed in this senseless jugglery of words, cannot demonstrate, to the satisfaction of the courts, means something the very opposite of the real intentions— the spirit—which the framers thereof, intended it to

convey. Anciently, it required no artful cunning of the lawyer to interpret the laws. The words had only one simple and obvious meaning. If a language could be so constructed to-day, and the antiquated precedents of the courts annihilated; the legal profession would be exterminated inside of twelve months, and an affliction removed from the people.

The philosophy of the Magic Wand is this. It is a magnetic, electric conductor for the magician's will. It directs the flow of his thought and concentrates it upon a given point in space or an object. It is, magically, what the sights of a rifle are to a sportsman. It enables him to focus his powers with exact precision upon the mark against which, or upon which, his will is directed. Apart from this there is no power, per se, in the Wand itself, any more than there is in a lightning conductor without the electric storm. Ergo, the Wand is the conductor, in the magician's hand, for the lightnings of the soul; and just as the lightning rod is most useful and most powerful to protect, when the storm is the strongest; so is the Wand most powerful in the hands of the most potential magician. We can only transmit through this Wand the degree of force we may happen to possess in the soul.

In a properly prepared Wand lies the most powerful weapon, to protect or destroy, that can be placed within a magician's hands. With his own spiritual force and knowledge, combined with the magic power attached to the instrument, nothing can withstand its power, when directed with a determined and powerful will.

Many substances have been employed in the manufacture of these Magic Wands. Metals or stones will not serve this purpose, unless covered with some organic matter. In any case stones are worthless. The very finest Wands are made from the live ivory of a female elephant. A short Wand, twenty-one inches long, tipped with gold at the largest end and silver or copper at the other, is very powerful. Next to these costly articles are Wands with a gold or copper core, a wire, in fact, cased with ebony,

boxwood, rosewood, cedar or sandalwood. English yew also serves the purpose; so does almond wood. Simpler, less expensive, and almost as effective, are Wands made of witch-hazel. In fact, apart from the Wands of live ivory, I consider that witch-hazel is as powerful as the golden Wand. Next in force to this witch-hazel are the shoots of the almond tree, and, lastly, the peach and swamp willow.

The proper time to manufacture a Magic Wand is whenever you can find the person who is able to do the work. But after it is constructed it must be thoroughly magnetized, with proper ceremony and aspiration, the first or the second full Moon after the Sun enters Capricorn, at midnight, when the Moon will be culminating in her own sign upon the mid-heaven.

The best time TO CUT a shoot of witch-hazel or other material for a Wand is the first full Moon after the Sun's entry into Capricorn, at midnight, and then magnetize it upon the next full Moon at the same hour.

In conclusion, let us repeat that, the Magic Wand is but the highly sensitive magical medium for transmitting and concentrating the force of the learned magician; that it is equally powerful under great excitement of mind, WHETHER USED CONSCIOUSLY OR NOT. The stream of mental fire will go in the direction the Wand happens to be pointed, and, therefore, should never be in the hands of the wicked or foolish, any more than firearms. It is potential or otherwise, in exact proportion to the artist's wisdom and dynamic mentality, and is useless in the hands of the idiotic or weak-minded. A Magic Wand requires brains and vigorous mental force to make it effective, just as the steam engine requires an apparatus for generating the steam, that moves it. With a determined will, and a mental conception of one's inward power, any man or woman can, by means of this sensitive Wand, defy all the legionaries of Hell, and quickly disperse every form of spiritual iniquity.

The firearms which have become so intricate in their mechanism and so destructive in their operations, are only a degeneration of the Magic Wand. The first weapons of warfare and slaughter were very crude and clumsy, then larger and more destructive, until at last they have become as fine in texture and mechanical genius, compared with their early brothers, as the Magic Wand is to-day, above and beyond, the present weapons of warfare. At last, the original mode of defense will be rediscovered and become a utility in the hands of the majority of mankind. At the same time, the mental and moral nature will be evolving into better conditions, too, so that their use will not be given to the ignorant and evildoers, but placed in charge of the educated, those who are morally capable of leading and ruling.

Yes, we are now stepping upon the plane of reason and intuition, where right, not might, will prevail and rule the world. The present mode of government and rule will be changed, and one of humanitarian justice take its place.

God hasten the Millenium.

THE BOOK WHICH IS CALLED THE TABLETS OF AETH

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FOREWORD

Thy temple is the arch Of yon unmeasured sky;
Thy Sabbath the stupendous march Of grand eternity.

zain. adwan

To my Brothers and Sisters of the Hermetic Brotherhood of Luxor:

GREETING—For some years it has been my desire to leave a spiritual legacy to the many devoted friends and followers who have braved so much amid present truth and error for my sake.

In choosing the present work for such a purpose, I have had in view the deeper spiritual needs of the soul—the prophetic element of the interior spirit, which can best exalt itself through the contemplation of Nature's arcane symbolism of the starry heavens—not the material expression of the glittering splendors of the midnight sky, but the spiritual soul-pictures of those blazing systems that reveal to the seeing eye the shining thrones of THE RULERS—the Powers that Be.

Ever since the dawn of intellectual human life upon our Mother Earth, long before the days of the cave man, or even the first frost that heralded the coming of the Ice Age, souls have hoped and hungered and souls have quailed and fallen in their struggles with the mysteries of God. But ever and anon some bright flower of the race has gained the spiritual victory. A Messianic soul has responded to aspirations of a great-hearted, great-souled woman, pregnant with spiritual yearnings beyond her race, and she has unconsciously blessed her kind for the generations yet to come with that incarnated mystery—THE SON OF GOD. Blessed, O Woman, is thy patient mission on the earth, and transcendent are the holy mysteries of thy maternity. Every human birth is a Divine miracle in humanity, performed by the Motherhood of God.

Hence it is that, from the earliest ages of life, triumphant souls have stormed the gates of the sanctuary and penetrated Nature's most occult mysteries and there recorded their spiritual victories. Amid these sacred records lies one great scroll, that none but the brightest and bravest may read.

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This sacred scroll, sealed with the seven mystic seals of the heavens, contains The Tablets of Aeth, a record of the soul's experiences upon the planes of both conscious and sub-conscious life-spirit and matter, that are expressed in a series of universal symbols, which manifest to the seer the processes of creative life, of spiritual cause with material effect. And, finally, the mystery of the seven vials and the seven stars of Saint John are written therein; for the Tablets are the hieroglyphic keys which unlock the realities of truth involved within the unrealities of external life, and open up, to the aspiring soul, inconceivable vistas of knowledge yet possible of realization, within the Divine womb of the uncreated Aether.

Myriads of exalted spirits, who have toiled for the treasure which doth not corrupt, have added, and are adding, their portion of personal conception to this universal conception of life, so that the sacred symbols themselves, inscribed upon these imperishable Tablets, ARE EVOLUTIONARY—are slowly unfolding through the eons of time, and revealing wider and yet deeper processes of the light, life, and love, of the Motherhood of God.

Therefore, all Divine revelation of infinite truth is limited and finite as to its conception, when revealed through a finite capacity. All Divine truths are universal; all personal conceptions of such truths are limited; hence springs the unquenchable fountain of the ONE eternal truth, eternally repeating itself, in cosmic as in human life, by the progressive unfoldment of Nature's unlimited potentialities.

"The outward doth from the inward roll,
And the inward dwells in the inmost soul."

The true poet is always a seer, and he might have added that the INMOST SOUL is the uncreate, and, the yet uncreated itself, lies buried in the ever eternal beyond; hence the immortality of the human spirit.

This sacred astral scroll, rightly and reverently studied by the disciple of the higher law, becomes a boundless source of knowledge and inspiration. There is no mood of the mind or yearning of the soul that cannot be satisfied and refreshed from this inexhaustible fountain of spiritual truth, no passion of the human heart that cannot be eased of its burden and soothed of its pain. Its spiritual refreshment falls like the dew from heaven upon those who are weary and heavy laden with the trials and sufferings of external life.

Accept it, then, even as it is given unto you. My friends and brethren, accept it as Zanoni's last work on earth—his legacy to you, and may the spirit of the All-Father-Mother, the ineffable spirit of Life, Light, and Love,—the Unknowable, whom men call God, rest upon you and be with you now and forever.

INTRODUCTION

TO THE BOOK WHICH IS CALLED "THE TABLETS OF AETH," WHEREIN ARE DESCRIBED THE FORMULAS OF MEDITATION.

THE FORMULAS OF MEDITATION,

TO THE DRAGON, FOUNTAIN OF YOUTH.

"When first, a musing boy, I stood beside
Thy starlit shimmer, and asked my restless heart
What secrets Nature to the herd denied,
But might to earnest hierophant impart;
When lo! beside me, around and o'er,
Thought whispered, 'Arise, O seeker, and explore.' "

The Tablets of Aeth are the culminating expression of symbolical ideas, and the studious meditation thereof is to be approached and continued in this wise:

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First, commit to memory, as near as may be, all the ideas involved in the astrological laws and principles laid down in "The Science of the Stars," formulated in the second part of "The Light of Egypt," Vol. I, especially as regards the symbolism there given and manifestation thereof on the intellectual plane. Mentally digest these aspects of truth most thoroughly.

Second, carry forward the same course of mental training with regard to the preceding chapters in this volume, from No. 1 to No. 12. There are thirteen chapters, but No. 13, the last one, being "The Penetralia," should not be included in this course, but, rightly used, should be reserved as the last and final revelation for spiritual contemplation.

The twelve chapters just mentioned continue the great astral laws given in "The Light of Egypt," Vol. I, from this plane to that of the soul life of the human monad (both prior to and after human incarnation). At this point we leave the finite and step into the realms of the infinite. From the sphere of limitations which surround the microcosm we enter the starlit path of the macrocosm, and here, with the illimitable ocean of eternal life sweeping onward before us, we hear the first strains of the Grand March of the Universe burst forth from the organs of God! The suns of creative life swell the infinite chorus of sound; archangels swing their fiery batons to the march of the heavenly host; and all earthly sound has ceased. We are absorbed in the music of the spheres.

We are now in the realm of universals, the domain of living realities. The Tarot of Mother Nature revolves before us, revealing her mystic meanings to the soul. All ideas are symbols, and symbols are reservoirs for the conservation of thought. And this is a very truth: Even so on earth as it is in heaven.

The Tablets of Aeth, then, constitute a spiritual astrology, a spiritual science of the stars, void of mathematics, yet possessing all the exactitude of figures, constructed on the principles of astronomy, yet expressed by the methods of the Kabbalah.

The transmission of spiritual truth from inward to outward form, though differing according to the age in which it is expressed, is ever the same in principle. And in the same way that the sacred clavicula of Solomon became the Tarot of Bohemian gypsies, so did the Tablets of Aeth manifest their mysteries in the starry science of Chaldean lore. But there is this sharp line of demarcation between them, namely, the Tablets of Aeth deal with universal human life and nature, with infinite principles from which all finite laws radiate. The Tablets of Aeth express and symbolize the cause. All other mundane systems of occult study, astronomical or metaphysical, are spirito-natural effects, the individual intellectual fruits, gathered from the one universal tree of knowledge. Uncreated, Unlimited Potentiality, is the one impersonal truth shining forever in the Great White Light of God. All the laws, powers, and principalities, manifested in the moving Universe, are but the colored rays, blazing with glorious life through the prisms of matter.

Having stated thus much, the neophyte will perceive in what meditative sphere of thought the Tablets may be used. The method of study is, as shown, a purely synthetic deduction of human ideas from spiritual symbols of universal principles. The Tablets themselves constitute a grand arcane Tarot of man, God and the universe, and of all the powers that dwell therein. They may be studied singly, as, for instance, meditating upon some one great universal idea or principle; or they may be studied in trines, as they appear in each separate book, or chapter, or as squares, like two, five, eight, eleven, or as the seal of two trines, one, three, five, seven, nine, eleven, with No. twelve in the center, as the revealer of the mystery. And, finally, they may be contemplated as the Grand Oracle of Heaven, in the following manner:

Make a circle of the tablets, as you would with a pack of Tarot cards, beginning with No. 1, on the eastern horizon, and proceeding in the exact opposite order from a figure of the heavens—No. 2, being on the Twelfth House, No. 3, on the Eleventh, and {} on the M. C. of the figure, as in the Astro-Masonic chart, given in the second part of "The

Light of Egypt," Vol. I, and so proceed with the rest of the twelve tablets of the stars. This figure will represent the potentialities of the macrocosm, the starry signs symbolizing the possibilities of things past or to be, and the rulers the active executors thereof. Study the figure in all its aspects as such, first singly, tablet by tablet, then as a whole—the cosmos. Next, place the ruler of any given tablet at the side of the Mansion, and try to penetrate its various meanings, powers and possibilities. Then proceed the same with a trine and a square, and, last, with all the rulers, in the order of their celestial lordship of the signs, each in his appointed place, as a whole Arcana.

In any grave crisis of mental or physical affairs, wherein nations, and not individuals, are concerned, the tablets may be used as a celestial scheme of the heavens, thus: Cast a figure of the heavens for the Sun's first entry into the sign Aries at the vernal equinox, calculated for the meridian of the capital city of the country under consideration. Degrees and minutes are not wanted. Then place the twelve tablets in place of signs, exactly as they would occur in an astrological figure. Then place the rulers of the Sun, Moon and planets therein (each having its own tablet), as they are found to be situated in an ephemeris for the time of the figure. This done, study the whole from a spiritual standpoint as the causes and ultimates of the crisis, according to astro laws.

The foregoing simple directions will, I think, be sufficiently plain for all purposes, never forgetting that this holy study is not a system of divination, as commonly understood, but of Divine revelation, in its highest and most holy religious sense. Long study and most reverent meditation will be required to master this mystery, and many errors of judgment will occur to the beginner.

The interpretative reflections are added for the purpose of guiding and guarding the spiritually untrained seer from possible error in fundamental conceptions only. They must not by any means be taken as a complete revelation of the tablets, but only as a series of skeleton keys by means of which all things may be revealed to the earnest

seeker thereof. To have added more than is given would only be to defeat the object of this work. Each seeker for the truth must excavate the mines of knowledge, and dig further into this universal well of truth for himself.

Remember that all interpretation will be personal to each student. Of no one can it be affirmed, "thou hast said," and so endeth the matter. Not so. To each, according to his talent, shall the mysteries of the kingdom be revealed, to every one according to his humility, spiritual light, and merit. But from the arrogant, the selfish, and spiritually proud, shall all things be taken away, and truth shroud herself in the veil of delusion. In simplicity of mind, then, and purity of soul, approach the Holy of Holies. "Suffer little children to come unto Me," saith a messenger of the Most High, "for of such is the Kingdom of Heaven." Verily, therefore, I say unto you, that not until you can look upon all the works of Nature—beauty in her nakedness or vice and crime in their repulsiveness, with pure thought and holy feeling, can you inherit eternal life.

Here endeth the introduction to the book which is called "The Tablets of Aeth."

PART I

OF THE TWELVE MANSIONS

Here beginneth Chapter I of the Book which is called "The Tablets of Aeth," wherein is transcribed the First Quadrant of the Twelve Mansions.

"I sent my soul through the invisible,
Some lesson of that after life to spell;
And by and by my soul returned to me
And answered, 'I, myself, am Heaven and Hell.' "

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"The moving finger writes; and, having writ,
Moves on; nor all your piety nor wit
Shall lure it back to cancel half a line
, Nor all your tears wash out a word of it."

TABLET THE FIRST

Aries

SYMBOL

A deep blue Sky, a blaze, as if something were about to rise.

I

REFLECTION

TABLET THE FIRST

The blush of dawn of a new life, all nature quivering with the sense of coming, conscious life; Isis, vibrant with love of the coming child, her bosom flushed in expectation of the little son soon to breathe on her yearning breast.

In this we trace the great lesson of preparation, of sending the light before the form, of the prophecy before the fulfillment. Dawn must precede sunrise. What you expect will be your destiny.

It is the longing of centuries that incarnates a god, a real Sun-God, whose vibrant love-life can thrill other lives into prayer—aspiration, the struggle for eternal life. The dawn represents the expectant maternity of Nature—God.

O child of Adam! See that thou expecteth much, and that thy aspirations are reflected in thy outward life.

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TABLET THE SECOND

Taurus

SYMBOL

A red sun on the horizon of an inky sea.

II

REFLECTION

TABLET THE SECOND

Nature has shown forth her glory, as brought forth by young Horus, but her creative force is still unreflected. The sea is black and inky. The Son of God is born, but the sea of human life still remains unconscious, in primeval darkness.

The angles of the Sun and the sea are not yet in right relation to each other. A few, standing on the watch-towers of life, seeing the red glow of the risen sun, call "Look!" But the unfortunate ones in the outer darkness cry, as they beat their breasts; "No! There is no light! You do but dream!" And yet the Sun of Life has risen—the Divine light glows.

O child of Adam! Remember that "In Him was life, and life was the light of man, and the light shineth in the darkness, and the darkness comprehended it not."

TABLET THE THIRD

Gemini

SYMBOL

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Two stars are rising at angles to each other and to the Polar star, while eight stars shine faintly in the black space of background.

III

REFLECTION

TABLET THE THIRD

The Divine symbol of soul-matehood is here signified in the two stars rising in the foreground; not only the soul-affinities of humanity, but the eternal father-mother forces manifested in the biune spirit of universal life and nature, the two great creative powers, Life and Light, whose harmony creates love, attraction and repulsion, and the straight lines of law and justice, which blend in the spiral of mercy.

The two stars are rising at an oblique angle to the pole-star, the center around which, material things revolve. So, too, life and love are balanced by the star of wisdom. Love in the spirit is adaption to the environment in matter and providence in universal life. The eight stars reveal the mystery of the tablet—universal death, present with life, the final end of all discord glimmers faintly afar off, and man questions the love of God, seeing that all things pass away, not realizing that death is the germinal promise of life, of transformation, of the realization of unrealized hopes, of the union of loving hearts in their starry pilgrimage back to the Father's home.

O child of Adam! Listen unto the words of the Teacher: "I and the Father are one." Suffer little children to come unto me, for of such ii the Kingdom of Heaven."

PART I

Here beginneth Chapter 2 of the Book which is called "The Tablets of Aeth," wherein is transcribed the Second Quadrant of the Twelve Mansions.

"How they struggle in the immense Universe!
How they whirl and seek!
Innumerable souls, that all spring forth
From the vast world-soul.
They drop from planet to planet,
And in the abyss they weep
For their forgotten land.
These are thy tears, O Dionysus,
O Spirit vast, Divine One, Liberator.
Draw back thy daughters to the breast of light."

"Ah, love! Could you and I with him conspire
To grasp this sorry scheme of things entire,
Would we not shatter it to bits? And then
Remould it nearer to the heart's desire."

TABLET THE FOURTH Cancer

SYMBOL

A woman's face unconscious, in trance, surrounded by clouds.

IV

REFLECTION

TABLET THE FOURTH

The dreaming woman, whose brooding thoughts shape the coming man. The race is never any farther advanced than the average thought of the woman. She is yet sleeping, knowing not her powers. So, not until she awakes and recognizes herself as conceiving

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by the Holy Ghost and the mother of the incarnate God, will that God be brought forth unto universal knowledge.

In this is the great lesson to woman: Ever remember thy creative power as the mother of the humanity of the future. The sun in thy mansion exerts its highest power. Awake, therefore, O soul, and eclipse not its brightness with thy dreams of sublunary power.

O child of Adam! Ever honor the womb that gave thee birth, and know that all thy earthly greatness received its seed therefrom. A fountain cannot rise higher than its source.

TABLET THE FIFTH

Leo

SYMBOL

A man's arm, bent, exceedingly muscular, a knife in the hand, a streak of lightning opposite the arm, which is defying the lightning.

V

REFLECTION

TABLET THE FIFTH

Here we have the symbol of the incarnate fire of the spirit defying the mere natural fire of the heavens. The woman sleeps and broods and dreams, but the man she has brought forth is awake, and bids defiance to the fiery forces of Nature. He has armed himself with the keen knife of action, and with it has conquered the forces of matter. He has harnessed the lightning, and made the electric fluid his obedient slave. And thus

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has he mastered all forces inferior to spirit—that spirit of conscious life which is his birthright.

The lesson to be gleaned from this is that, the kingdom of Nature must be taken by storm. Not for rest, but for work, has Mother Nature sent forth her man child; not for peace, but for battle; not for inertia, but for effort.

O child of Adam! Arm yourself with the sword—mayhap the sword of affliction—and, gallantly raising the strong right ann aloft, hurl defiance at the chaos of Nature, sure that the fire from the Sun of the spirit is burning in every vein of that arm.

TABLET THE SIXTH

Virgo

SYMBOL

A Lotus, rising from the water, coiled around its stem a snake, whose efforts fail to reach the flower.

VI

REFLECTION

TABLET THE SIXTH

Here we have the sacred flower, symbol of the virgin soul, uncontaminated by the snake of passion, which can only enfold the body— the stem; the snake of matter—of lust—of evil. But the flower of the spirit—the soul—lifts its pure white petals upward as an incense cup to the Sun of the Spirit.

In this symbol read the great lesson of the experience of evil. If, the flower of the soul, blossoms; the mud of the soil and the snake of the passions are but the

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surroundings of its roots and stem. Both are necessary for the perfection of the flower. The roots sink deep into Mother Earth, and draw nourishment and life, lifting matter upward, while the snake of passion becomes, under another aspect, the serpent of wisdom. Coiled around the stem of this life, it gives to the incarnated soul that wisdom which later blossoms in the Seraph of the Sun spheres.

O child of Adam! Take suffering, if it forge the sword of the spirit. Take evil and passion, and turn them into deep lessons of life, blossoming the evil into good, changing passion into wisdom. Only "the pure in heart can see God."

PART I

Here beginneth Chapter 3 of the Book which is called "The Tablets of Aeth," wherein is transcribed the Third Quadrant of the Twelve Mansions.

"To know what really exists, one must cultivate silence with ones self, for it is in silence that the eternal and unexpected flowers open, which change their form and color according to the soul in which they grow. Souls are weighed in silence, as gold and silver are weighed in pure water."

"The worldly hope men set their hearts upon turns to ashes; or it prospers, and anon, like snow upon the desert's dusty face, lighting a little hour or two, is gone."

TABLET THE SEVENTH

Libra

SYMBOL

A crowned king, with a scythe raised in the air, looks closely at two boys wrestling beneath him in a field of grain, a red poppy below them.

VII

REFLECTION

TABLET THE SEVENTH

The symbol of Nature's eternal war for the impossible equilibrium between spirit and matter; the symbol, also, of Time, which is but the illusion in which eternity clothes itself; forever putting on and forever putting off new garments of matter. The crowned king is the victorious soul, waiting, with the scythe of Time, to reap the harvest of the world; while incarnated man, as represented in the wrestling youths, is struggling for that which he did not produce, and which only death can reap. The poppy reveals the secret of the illusions of Nature's master-showman. All earthly things are unreal to the spirit, which is the only real thing. Man's effort to hoard and save the things of this world IS INJUSTICE TO OTHERS. The struggle is eternal, and no matter how careful or cunning man is to monopolize either power, truth or wealth, swift-footed time will readjust all things without error.

O child of Adam! "Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt and where thieves break through and steal."

TABLET THE EIGHTH

Scorpio

SYMBOL

A wide, and plain, on it a skeleton; a dull, grey sky, in which an Eagle soars, full-fed, it seems, from the flesh of the skeleton.

VIII

REFLECTION

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TABLET THE EIGHTH

A significant symbol to the seer, showing forth the two ultimates of life and death, of earthly things and sex. Scorpio is both the eagle of the spirit, soaring aloft, well fed with all that is worth carrying away from the earth; and also the scorpion, whose natural home is the desert.

In sex, either way, life is given. Shall it be to your spirit making fat and full your immortal self, or will the other interpretation be yours? And will you leave yourself dead and annihilated, a skeleton, to the Ego, the Divine spirit? For sex is indeed the foundation of all. Raised to the region of Libra, it is power and magnetism. To the bosom it is love; to the brain it is enthusiasm. It is the promethian fire of life, the creative force, giving vigor to whatever region to which it is raised; or, lowered, to be spent with no returns, it debases and renders life a desert of dry bones.

O child of Adam! Reflect on the fall of man from spirit to matter, and combine the wisdom of the serpent with the purity of the dove, and "lest ye partake of the tree of life ye shall surely die."

TABLET THE NINTH

Saggitarius

SYMBOL

A child in a shell, holding in its hand a feathered lance, is drawn by five stars, grouped in an under arc.

IX

REFLECTION

TABLET THE NINTH

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The symbol of the conscious soul. The shell is the body, drawn by the five senses—stars—which form an under arc, to represent the world of material things and our relation thereto. The child, armed with the feathered lance, is the soul; riding thus, fully armed, in the shell of the body, it realizes the duality of truth; that all things are changeable; and that each thing is true upon the plane of its manifestation, while an illusion to that which is interior to its life, while the soul is in its dream state. Sagittarius represents conservatism and the permanence of crystallized institutions; but, when the spirit awakes and bursts the shell of matter, the senses, instead of being the guardians and jailors of its environment, become its servants, and the means by which, united as the one Ego, sense-perception, it races o'er the fields of Aeth—a being of life and beauty, shining in the empyrean of God.

O child of Adam! Ever remember that temperament and environment constitute the north and south poles of human possibility, and that ability, combined with opportunity, is the measure of responsibility.

PART 1

Here beginneth Chapter 4 of the Book which is called—"The Tablets of Aeth," wherein is transcribed the Fourth Quadrant of the Twelve Mansions.

"A hair, perhaps, divides the false and true. Yes, and a single alif were the clue—Could you but find it—to the treasure house, And, peradventure, to THE MASTER, too.

"Beware, O my son, of self-incense. It is the most dangerous on account of its agreeable intoxication. * * * Learn, O my beloved, that the light of Allah's truth will often penetrate an empty head more easily than one too crammed with learning."

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TABLET THE TENTH

Capricorn

A deep, black ground, o'er which shimmers a phosphorescent light; at each side an aurora borealis rises, mountain like; above all, a tiny star.

X

REFLECTION

TABLET THE TENTH

Here is revealed the symbol of the messenger of the Most High. The star hovers over the phosphorescent light cast on the darkness as the spirit hovers over the blackness of matter. The aurora borealis stands as the emblem for the magnetic attraction of Earth on spirit, the Christ soon to be born in the manger of the Goat; the descent of the Holy Ghost into material form, so that heavenly truth may illumine the drear speculum of earthly thought with the Divine iridescence of celestial light. It is the lowest arc of the cycle that reveals the new birth of death unto life—the divine egg of Brahma, containing the promise of the new law: "Peace on Earth, good will towards men."

O child of Adam! Be thou the star, and not a dweller of the outer darkness, and "Let your light so shine before men, that, they may see your good works."

TABLET THE ELEVENTH

Aquarius

SYMBOL

A stormy sea is seen; above it the eight stars shine, brilliant and clear.

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XI

REFLECTION

TABLET THE ELEVENTH

This tablet symbolizes the complete materialization of man—man, perfect on the earth and the lord thereof, in so far as material forces are concerned. The storm is the tempest of life, the whirl of the elements of matter in their battle with the spirit. The eight stars, brilliant now (for they are the same stars that were dimly seen in Gemini), show that the conquest of matter is complete, the great fall of spirit finished; the end of involution. And this would bring stagnation and death, if peace now ensued. The lesson taught is that, not in peace and rest can the soul grow; but amidst the earthquakes that shake thrones, the floods that overwhelm countries, the fires that reduce to ashes, has the strong man-soul grown to its present state and power. So fear not the storm, but the calm; not the unrest, but the quiet; fear not the battle, but the ignoble peace of the coward.

O child of Adam! The astral soul must learn to do and dare. Not over the brave man's grave shall it be written, "Rest in peace," but "I will arise, and go to my father."

TABLET THE TWELFTH

Pisces

SYMBOL

A comet, beyond it infinite things, only dreamed of as yet, a world floating in an ocean and in night, beneath are two hands clasped palm to palm.

XII

TABLET THE TWELFTH

A REVELATION OF THE TO BE. The comet is the twelfth Avatar, the herald, coming forth from the starry abyss of the infinite, staying with us a little while, and then flashing on his shining way to other worlds than ours, bearing THE DIVINE WORD from sun to planet, as the fiery messenger of God. And here the soul may well ask: "Who? Where? Whence and Whither?" For behold, he has come, and gone, and

"Earth could not answer; nor the seas that mourn In flowing purple, of their Lord forlorn; Nor rolling Heaven, with all his signs revealed And hidden by the sleeve of night and morn."

The world floating in the sea of the infinite and resting in night shows the present state of humanity. But, "the blush of dawn" is ready to gladden the soul, and the expectant seer, from his lonely vigil on the hilltop, awaits the sunlight which will soon flood the world anew.

The two clasped hands point to many problems, chiefly soul- matehood, the message of the starry messenger, universal brotherhood, and the Father-Motherhood of God.

O child of Adam! Watch and pray, that a voice of the silence may speak unto you.

Here endeth the four Quadrants of the Tablets of the Twelve Mansions, wherein are revealed the signs and symbols thereof, as faithfully transcribed from the sacred roll in the astral records and called "The Tablets of Aeth." April, 1893.

PART II

of The Book which is called

THE TABLETS OF AETH OF THE TEN PLANETARY RULERS

PART II

Here beginneth Chapter I of the Second Part of the Book which is called "The Tablets of Aeth," wherein is transcribed the First Trinity of the Planetary Rulers.

"The human heart is the true temple of God; enter ye into your temples and illumine them with good thoughts. The sacred vessels, they are your hands and your eyes. Do I say that which is agreeable to God—doing good to your neighbors? But, first embellish wherein dwells He, who gave you life." ——

"How small soever your lamp be, never give away the oil which feeds it, but only the light and flame, which crown it."

TABLET THE FIRST

The Sun

SYMBOL

A flaming splendor, a center of light, radiating in all directions.

I

REFLECTION

TABLET THE FIRST

The symbol of all created life, spiritual and material; of all goodness, human or Divine; the center of all thought, from brutal instinct to Deific wisdom; of all creations, from starry systems to man, and from man back again to invisible gas; of all action, from the imperceptible vibrations of nerve energy to the awful destruction of worlds. All creative potency lies within a Sun sphere. Light is life. The planets are but the offspring of light and life. So in this symbol, we read the source of the human Ego, of

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our own life. We are, as it were, the planets of the spiritual Sun. Our souls are the attributes of the Sun, of the spiritual Ego. Only from the Ego can we receive life eternal and make immortality a fact. Obeying this spiritual life-force, the human monad is but an attribute, a reflection, of the Divine Ego, and if it fails to awake to a consciousness of this union, it withers and dies like a flower plucked from the parent tree of life.

O child of Adam, in reverence and awe do thou meditate upon this Tablet, for it is a thing of beauty, a being of light, life and love, manifesting its creative mission. It is the Vicegerent of God, flaming forth His splendors in the sky.

TABLET THE SECOND

Mercury

SYMBOL

An elephant, kneeling between two square columns; on one an eagle, on the other a vulture.

At the side a boy, with bow and arrows, standing in doubt which to shoot.

Below these a human face, composed of various flowers, whose roots are snakes, a poppy, forming an eye, which winks.

II

REFLECTION

TABLET THE SECOND

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A vision revealing the earthly drama of the microcosm. The elephant represents the highest expression of intelligence, minus the spirit; kneeling between the square columns of matter, i.e., guarded by them. The external mind is sleeping, or, at most, dreaming of the things of the spirit. Above sleeping mind sit the two birds, who represent spirit and matter, each waiting for the slowly preparing feast. The boy, the soul with its weapons, has a choice. Shall it be the sensuality of the flesh that he shall destroy, or the possibilities of the spiritual life on earth. The problem awaits solution. The eagle sits ready to bear aloft the spirit of the sleeper. The vulture hopes for sleep to end in death, that he may live upon the carrion thereof. The flowers of the external mind have for their roots the snakes; and, in a larger sense, the flowers of immortality have the serpent of wisdom for their roots. And the poppy winks. It knows its own power of illusion, and the double significance of the snake; the necessity of evil in the evolution of good. It is the Tablet of Wisdom.

O child of Adam! "Be ye therefore wise as serpents and harmless as doves."

TABLET THE THIRD

Venus

SYMBOL

An altar: on it two cups, one full, the other spilled; near them two bleeding hearts, in one a snake, in the other a dagger.

Above—clouds, from which comes a woman's face, a wreath in the hand, coming out of the cloud; in the wreath an angel, going upwards, with wings outspread.

III

REFLECTION

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TABLET THE THIRD

There is but one altar, but one blood of the sacrament in two cups, but one flesh of the Christ—the Ego—in two hearts, two experiences in love, ecstacy, and pain; two results of experience, the serpent and the dagger, symbolizing wisdom and affliction. Above the altar the divine woman holds the wreath encircling the angel. The angel of immortal life rises from the altar of sacrifice. Some of the wine is spilled as offering. The cup that is filled is raised to "Ra." To serve at the altar of love is the soul-mission of all, even as Christ served his disciples. Each soul must find its own service, and then the pilgrims of the Sun return to the mansions of the blessed. The great mother-god, Venus, Urania, quivers and thrills as she holds forth her offspring—the angel, the young Eros of life eternal.

O child of Adam, this is the Tablet of Love. Meditate thereon, as the last of the triune God. In this Tablet lies the secret of suffering and pleasure. He who vibrates in pain will quiver in ecstacy. Only those who have agonized in Hell can thrill in Heaven.

PART II

Here beginneth Chapter 2 of the Second Part of the Book which is called "The Tablets of Aeth," wherein is transcribed the Second Trinity of the Planetary Rulers.

"Thou art called forth to this fair sacrifice
For a draught of milk; with the Maruts Come hither, O Agni!

They who know the great sky, the Visve Devas without guile; with those Maruts Come hither, O Agni!

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They who are brilliant, of awful shape,
Powerful, and devourers of foes; with the
Maruts come hither, O Agni!

They who in heaven are enthroned as gods,
In the light of the firmament; with the Maruts
Come hither, O Agni!"

"Let us meditate on the adorable light of the Divine Rulers. May it guide our intellects."

TABLET THE FOURTH

The Moon

SYMBOL

NIGHT

A wonderful spider's-web;

The web glitters in the faint moonlight against a dark background of blue; moon invisible; on the outside of web a star, in the center a spot of light, underneath a coffin filled with stones.

IV

REFLECTION

TABLET THE FOURTH

The web of life has caught the monad of the soul and thus incarnated the universe, for each soul incarnates its universe at birth, each one's world being different, and peculiar unto himself. At the first breath, the young child polarizes his relations to stars

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and earth, and it is the affinity and repulsion which make his life experience. And the stars weave the web in their lines of sextile, square and trine, of opposition and conjunction, thus enveloping the monad in the Circle of Necessity.

Outside the star of the spirit, the Ego, shines clear, free from the entanglements of the web and unaffected by the magnetic glamour of the Moon. And lo! the coffin is filled with stones, a symbol of death and the Moon, which is but a casket of stones. Therefore, little monad, caught in the tangle of the web of life and the glamour of earthly things, take heart, for, beyond all, is the star of your being. Call down the law of that star into yourself, and the web is broken and waves its tattered shreds in the breeze. The moonlight, the reflected light, pales as the Star-Sun of your being rises, and the moonlight of Earth gives place to the Sun-spheres of Ra.

O child of Adam! The beginning of sorrow is the dawn of spiritual life. The wise man rules the stars; the fools of Earth obey.

TABLET THE FIFTH

Mars

SYMBOL

An immense helmet on pedestal, across which a streak of lightning flashes; beside it a naked child painting pictures on the helmet; beneath, a broken sword.

V

REFLECTION

TABLET THE FIFTH

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Can greater irony be shown than in this astral symbol. Mars is externally represented as a fierce warrior, awful to behold; the reality, a little child, painting toy pictures on the helmet, too big for his curly head. The lesson in this is indeed, that the pen is mightier than the sword; that the big and blustering helmet will become a plaything for the child. Soon, that the sword of bloodshed, rape, and ruin, will be broken and war relegated to the past, looked at, but, as pictures, painted with hideous reality by the childhood of the race.

The symbol also reveals the great executive forces of humanity, the child. The soul can paint, execute its ideas, its hopes and its fears in any color—the lurid red of blood, the black of ignorance and crime, or in the living light of beauty. All the same, it is the childhood of man painting its ideals in the material world.

O child of Adam, curb the anger of Mars, that thy painting may set the dove at liberty. Let the magic of thy soul transform the savage of the desert into the angel of mercy.

TABLET THE SIXTH

Jupiter

SYMBOL

A cave in the mountain side; a face like the sphinx comes out of the cave, there is a blackness behind it; it looks with upturned head to a light that is way beyond; it is a face that means something awful, a godlike defiance to the things that are.

VI

REFLECTION

TABLET THE SIXTH

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Again we are impressed with the contrast of internal and external things. Jupiter, the symbol of authority, conservatism, church, and state, and the stability of human institutions, and the things that are, as the things that are the best. But oh, how widely different the internal, the real Jupiter, that governing power of the spirit that hurls defiance at unjust authority, the cruelty and tyranny of the world. The soul sees the light beyond, and, emerging from the dark chasm of matter, knows the battle that must be fought against wrong. It is the awful—yea, terrible—symbol of defiance to gods and men who oppose its onward, upward march to the shining goal of light. Make way, then! Make way! For Earth has given birth to her giant son—the Spirit. For, listen closely, my friend, to the axiom of Immortality. What is soul? Not the spirit, mind you; not the deathless Ego, of which you at present, perchance, know absolutely nothing. Soul is mere memory; a scavenger in earthly states; and a gleaner, a hired help, in the fields of heaven; and to become immortal, there must be something more than soul as the result. It must take such a vital interest in its Lord's work that, finally it becomes too valuable to lose, and must be taken into partnership, so to say. The Ego—Lord— has found a valued servant, a trusted steward, after much seeking, and at once adopts it as its very own. And so the soul becomes heir to the heavenly estate and receives the immortal, vital principle of spiritual union, and awakes from the son of Earth a God-like being, free from the shackles of Time—a dweller in eternity. The soul must awake and realize the Deific atom around which it revolves before it is too late. Unless this is so, the seed of immortal life, sown in matter by the Ego, has not germinated, and it returns unfruitful and dies—it is an abortion. Many, many seeds never germinate. Many good orthodox, but animal-like lives, live, move, and die,—yes, die in very truth. Would to God I could make all mankind realize this awful, inconceivable privilege of life, that, Jupiter-like, they would turn and face the light.

O child of Adam! "It is easier for a camel to go through the eye of a needle than for a rich man to enter into the Kingdom of God."

PART II

Here beginneth Chapter 3 of the Second Part of the Book which is called "The Tablets of Aeth," wherein the Third, and last, Trinity of the Planetary Rulers is faithfully transcribed.

"Thou hast entered the immeasurable regions. I am the Dweller of the Threshold. What wouldst thou with me? * * * Dost thou fear me? Am I not thy beloved? Is it not for me that thou bast rendered up the delights of thy race? Wouldst thou be wise? Mine is the wisdom of the countless ages. Kiss me, my mortal lover."

"Thus man pursues his weary calling, And wrings the hard life from the sky, While happiness unseen is falling Down from God's bosom silently."

TABLET THE SEVENTH

Saturn

SYMBOL

A human figure with a scepter of power, a being of light crowned with flames.

VII

REFLECTION

TABLET THE SEVENTH

In the external we remember Saturn as an old man, and as a skeleton with a scythe—as Time, in fact. But see, O immortal soul, the real Saturn, as the Angel of Life, having from time gathered the experiences which crown him with light, holding the rod of power; the Christ born in the manger of Capricorn, the Goat—life born of death; the

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conqueror of evil. He throws off the mask of age, and divine youth beams on us. He doffs the mantle of rags, and royal splendors clothe him. He lifts the hood, and behold the crown. He raises the crutch, and lo! the rod of power. He drops the scythe of death for the jewel of eternal life.

"Om Mani Padme Um." (Oh the jewel in the lotus.)

O child of Adam! Meditate on the transmutations of life. Behold the earthly miracle of the caterpillar and the butterfly, of the toiling mortal and the transcendent God!

TABLET THE EIGHTH

Uranus

SYMBOL

A human eye, from which darts lightning upon an ocean of matter.

VIII

REFLECTION

TABLET THE EIGHTH

The state of soul and spirit—penetration; the wonderful power of soul-perception, which sheds its light on all visible things, receiving their images and interpreting them into the spirit, the all-seer—what does it not convey? The perception that can see deep into your soul and see, as it were, the yet unborn thought; that can distinguish the motive of action; that judges the realities of your soul. Such is the Astral Uranian. For with us all, are three planes of mind: The drift plane, the intellectual, and the spiritual, or internal plane; and thought- reading can be on one or all of these different states. But

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only the Uranian seer can read the inmost mind, and so really know the possibilities of your spirit.

Imagine an image of soft wax, covered with a sensitive skin. All impressions on the skin shape the plastic wax, but go no deeper— do not reach the soul. You can separate these impressions from your real self, when calm and alone, and look upon emotion as a surface play. But the tragedies of life strike deep. They affect the soul, and go to the center of being. "Verbum sap."

O child of Adam! Watch the tempest of life closely. The Ego may sit calm amidst the storm, but, if that be stirred—BEWARE! The God acts; the soul alone watches.

TABLET THE NINTH

Neptune

A Winged Globe.

IX

REFLECTION

TABLET THE NINTH

An unknown quantity, a hope of progression, ideal love, and all true mental and spiritual ideals; aspiration to become that which we feel to be noble and true; the symbol of the monad, the soul which, receiving its life from the Sun—the Ego—is constantly revealing new forces and potencies of that God-life. Each soul's Ego is its maker and God. The Ego is like the Deific potency of the universe, unlimited in potential power, but limited by its monad as to what will be evolved from its awful depth of being. Deity progresses through its expressions of the cosmos. The Ego, your God, finds progressive

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expression through you, through your soul. That soul is not immortal that becomes separated from its Ego—its God. So, soul, spread your spiritual wings and soar upward.

O child of Adam! Know these three things: Eternity is the creator of the universal life; universal life creates the world, and the world is the creator of time. And of these, the Universe is Life, and the World is Mind, and Time is the Soul. The sum total of all is Experience. And this is individual, conscious life—"Jacta est alea" (the die is cast)—the wings are spread.

TABLET THE TENTH

The Cypher - the unknown

SYMBOL

A Shining Nebulae; within it a dot, aimlessly wandering around an unknown center.

X

REFLECTION

TABLET THE TENTH

The unknown in very truth. It is everything—it is also nothing. Inconceivable visions arise within the mental universe, but nothing assumes definite form. It is all that is past. It is likewise everything that the future has in store. Amen.

O child of Adam! "Canst thou bring forth Mazzaroth in his season? or loose the bands of Orion?"

PART III of The Book which is called THE TABLETS OF AETH

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OF THE TEN GREAT KABBALISTICAL POWERS or ANGELS OF THE UNIVERSE

PART III

VISION

Each angel standing in front of the symbol is dimly outlined and transparent. Through the angel's form is seen its symbol.

FIRST

A luminous something, which gives the impression of sleep.

SECOND

Something moving, like an ocean.

THIRD

A storm, and lightning.

FOURTH

A mist.

FIFTH

An animal moving, resembling a turtle.

SIXTH

A blue light; in the center a star with three points.

SEVENTH An expanse of water, a blue sky, a shining disk rising on the horizon.

EIGHTH

A lurid sky, like a red dawn; in the water floats an egg.

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NINTH Five stars on a convex arc, like a rainbow; the shell of the egg is broken and forms continents.

TENTH A man lying fast asleep under a magnificent palm tree, with his face turned toward the horizon of the sea.

EXPLANATION

Only the pure in heart can see God, and to those pure souls I commend the following brief explanation of the Vision of the Angels of Life, which I have here recorded for the benefit of all whom it may now and hereafter concern.

In the original Vision of the Tablets of Aeth a great circle was seen, in the center a head, a faint shimmer above the head, as if the light were about to dawn; a dull, lurid glow beneath, as if of chaos or hell; the hair around the head like floating clouds, the beard like strange cloud-streaks. Each sign of the Zodiac surrounding the center head had within it a faintly seen face. Beginning with the first, it became more and more distinct and perfect with each sign until it evolved into godlike beauty in Pisces.

The symbolic planets were around the Zodiac, and beyond these, making a third grand circle, were the ten Evolutionary Angels. The vision is that of the evolution of all life, spiritual and material. We gaze at the cosmic sex mystery, and the discerning mind, the loving spirit, can read the correspondence of the great sacred conjugal act of both man and God; of its heights, of its depths, and of all that lies between.

To aid in meditation on the bead at the center, herein is written a vision, an experience of the soul in the Sleep of Sialam.

The Hermetic brethren encircled my astral body, which was deeply entranced. "From whence," the great question, quivered through my inmost being. To answer that awful

problem of the soul the released spirit went on its fearsome journey, back through star systems; back, back beyond all stars, back to the blackness of nothing— that awful nothing, whose outside ring vibrated with fearful flames; the fiery cherubim, winged, taking all possible shapes, and unformed living shapes. A human flamed and changed and vanished. The tornado of whirling, flashing, chaotic life swirled and drove through the darkness of chaos of nothing from nothing—and that great, unknown abyss is God! But the life is EVOLUTIONARY.

Deity is progressive, so never can man cease to be. Never can he return to that awful center of nothingness, or be absorbed within the bosom of the unmanifested being. On, and on, and on, with Deific power, God moves in ever-increasing whirls of evolution.

Thus came the answer of the ages: "From primeval force, from the mighty breath of unmanifested being, through every phase of action and reaction, from the energies of storm and lightning, from star-dust to sunlight, has come the spirit of man!"

And the Astral Brethren understood.

THE TWO SEALS OF THE EARTH

I SYMBOL

A human being, with a flaming, burning heart.

II SYMBOL

A round disk inside a light, as from a sun, conceived, but not seen.

So here endeth the Book which is called "The Tablets of Aeth," transcribed from the astral originals in the Year of Doom MDCCCXCIII.

"Omnia Vincit Veritas."

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"THY KINGDOM COME."

(Zanoni) April, 1893

CHAPTER XII

PENETRALIA

THE SECRET OF THE SOUL

We have now arrived at our final study, which we have approached step by step amid the labyrinth of the mysteries concealed beneath the Veil of Isis. We stand at last upon the very threshold of the sacred Adytum, the "Holy of Holies," from whence proceeds our final revelation of that inmost conception of Man's identity with his Creator—the Penetralia of his Being—the last secret of the incarnated soul.

The written word almost fails us—does fail in fact, when we come to the difficult task of externalizing ideas, the sublimity of which is so infinitely beyond the crystallized images of matter that, they can only be realized in their true glory, when the purified soul can view them from the ineffable heights of eternal spirit. We are lost, dazed, at the brilliancy of the spiritual imagery that opens out before us, in its fathomless stretch of the eternities that are past, of the ever- imperishable present, and the unborn eternities yet to be; all of them linked together in one grand chain of spiritual relationship and deathless identity; as Man, the Angel, God; and God, the Angel, Man; as the triune Cycle of Being, within the incomprehensible Cycle of Necessity; which constitutes Nature's cosmic university for the complete graduation, education, and purification, of that self-conscious, Deific atom of life, whose expression becomes the human soul. Ah! my brothers could you, but for one single instant, realize WHO you are, WHERE you are journeying, and WHAT your final destiny, every earthly moment at your disposal would be rightly used, and every hour considered too short for your efforts to aid your fellow-man. Selfishness, wealth, and power, would be so utterly

contemptible in your sight that their possession would be considered a fearful affliction and a curse, the moment they exceeded the comfortable requirements of mundane existence.

Leave self and the world behind you for the present, and, for the moment, leave your life, with its manifold vanities, in the outer court, and together let us cross the threshold and enter the door of the Temple. There! At last we have entered the Sacred Sanctuary, my brother, and we stand face to face with the imperishable truth of our being—the truth which makes us free, the truth which must ultimately prevail, by virtue of its own inherent Divinity; and we realize Man as he really is, not as he outwardly seems to be. We view him as a molecule, composed of a congregation of separate atoms, all of them held in their places by the centripetal force of the central human atom of life. And yet, small as he is, small as his kingdom is, compared with the mighty creation of which he is a part, he possesses all the inherent qualities of the whole. This, then, is our first conception—Man, is a microcosmic molecule, an atom of divine life.

The scene changes within the chamber, and upon the shimmering, luminous veil, yet before us, we view the large and mighty planet called the Earth. Not as a revolving satellite of the Sun, but as she really is, a vital organ of the macrocosm, the stellar womb of the solar system, the matrix which produces the material organic form of humanity. When the Earth was without form and void," as we are informed in the mystical language of Genesis, the human soul had not yet reached the state, or grade, in the celestial university that desired the Earth and its temporary illusions. Hence this state was void, an unborn idea, the To Be, and darkness, symbolical of complete lack of life and intelligence, "was upon the face of the deep," silent space.

Again the scene changes, and one by one the numberless planets, planetoids, moons, meteors, comets, and other attendant bodies, pass before the eye of the soul as we gaze upon the curtain of this Sacred Penetralia, each orb belonging to some portion of the

Astral Man, each great planet constituting some vital function of the macrocosmic organism, and conferring those qualities upon each and every single atom pertaining to that degree of life, so that the solar system becomes individualized as a grand cosmic organism, its attendant satellites constituting its vital organs, and the shining Zodiac its outward form. So, also, each planet is a living, cosmic individual, intensely alive; living, moving, breathing, and bringing forth its offspring of like substance, matter, in obedience to the potential demand of incarnating spirit. The Sun is alive, glowing with life, and constitutes the heart and arterial center of all the circulating fluids of the stellar anatomy.

Scientists may continue to predict, as they have been predicting, the day when solar radiation will cease, but their predictions will prove as worthless as the sighing of the summer wind, so far as reality is concerned. "It is an incomprehensible mystery to science," says Sir Robert Ball, in his "Story of the Heavens," "how the Sun has been able to maintain its heat with such regularity in the past, for there has been no appreciable change in the Earth's temperature for thousands of years." What it is to-day it was ten thousand years ago—yea, Sir Robert Ball, and will be in ten thousand years to come. You may wonder, and the Royal College may wonder, but in the meantime the mighty, pulsating Sun continues beating out its rhythmic vibrations of spiritual and dynamic life—continues, and will continue, to send the exhilarating current throughout every atom, to the remotest part of his solar dominions, and the same current RETURNS TO HIM AGAIN, UNDIMINISHED, for the purification which his glowing, transmuting photosphere alone, can give, to be sent forward again, upon its mission of light, life, and love, around the vital, organic worlds of the astral organism. There is nothing lost, no radiation of energy dispersed upon the unformed, lifeless ether. From the radiating solar focus of Divinity it comes, and to him, undiminished it returns, and so on forever and ever; until the last Deific atom has won its laggard way back to the shining throne of God.

The Sun breathes. The pulsating process of dynamic respiration, eternally repeated during the grand period of a solar lifetime, renews its vital energies, and supplies itself, with the full abundance of the ever-living spirit, transmitted from the shoreless ether in which it lives. It needs no other food, except the magnetic nutriment it receives from each vital organ, or planet, in return for the electrical life current it transmits to them. Just as the human lungs inflate themselves with the vital atmosphere, (which is only the ether, dynamically diluted by the Earth to harmonize with our conditions), to oxygenate the blood and add fresh fuel to the physical furnace, or supply finer essences to the nervous centers. Just as the human heart, with its continual, rhythmic pulsations, propels forth the circulating fluid to every part of the human frame; so does the central heart and lungs of the Grander Man of the Skies, (the Sun) send forth its vitalizing energy to every part of the universe.

Such are the crowding thoughts, born of interior knowledge, that flood the mind as we view these sacred revelations within the sacred chamber of the soul. As yet, we are gazing upon the undulating flow of the astral light. We yearn within our utmost being to become the center of the Penetralia and gaze upon the glorious radiance of the Adonai, from whose ineffable presence we are only screened by the last shining veil of semi-transparent matter, that waves and trembles with every spiritual aspiration. The soul sends forth its pleading cry for light: "Who and what is God?" Faintly, as the distant vesper sounds upon the cooling eve, comes the answer: "Who and what art thou? What canst thou see? What delectable blessing does Nature vouchsafe to the pure in heart?" We tremble with the awful, yet thrilling, revelation. We know dimly, yet fail to realize in our outward consciousness the full import thereof. We realize wherein the mistaken selfhood hath become the only begotten of the Father, but the revelation is too much, and too little. We know that, faint as the voice seemed to the yet unprepared soul, an echo only, IT WAS THE VOICE OF THE ADONAI BEHIND THE VEIL. And now we crave the knowledge of the Where and Whither.

Again, we see the Earth as the vital function of the interplanetary being. It is composed of substance termed matter, which substance is the aggregation of countless atoms, which science has not, and never can, resolve into their individual selves. These atoms are rings of the atomless ether, which, thus differentiated from the formless ether, become centers of force, the center of such force being a vacuum within the atomic ring—a center so small that a microscope with lens one thousand times as powerful as the most perfect modern instrument would fail to reveal it. These atoms form systems, under the control of another apparent vacuum; or, rather, this vacuum seems to be the focus, or center, about which they revolve. THIS SYSTEM CONSTITUTES A SCIENTIFIC MOLECULE OF MATTER, and, in response to the innumerable vibrations, they assume different forms or dimensions, and become, indifferently, molecules of oxygen, hydrogen, nitrogen, or carbon, as the case may be, all of which are but different modes of motion of the same primitive atoms, there being in Nature but three things—Ether, Intelligence, and Motion. What Ether is, no one knows. We call it the formless spirit, the unmanifest, etc. But, there can be no doubt but, that Motion is the product of Intelligence, since we never see Motion but as the manifestation of evolution, and this is the expression of Mind. Therefore, we have a duality—Ether and Intelligence; one the living spirit, the other the eternal substance for its manifestation.

Every molecule of matter is the outward form, the center of which, is the incarnating spirit, in some degree of progress. Man's physical organism is a system of life and development for countless billions of them. So the Earth, in its functional expression as the womb of Nature for the outward expression of Man, is only so in a material sense. HE IS PRIOR TO THE PLANET. He (Man) is only the offspring of the planet by virtue of his material body being a part of the substance of the Earth. This life is a stage, only, of his material journey; and, just as Man's body is continually throwing off useless dead matter and replacing the same with new life, so, too, the countless organic forms of

Earth are hourly returning to the ground from which they sprang, and new forms, rising from the same dust, are taking their places.

Here, then, is the sum total: First is revealed to us the grand Astral Man, the Zodiac being the outward idea or form, the Sun and his system the vital functions thereof. The Earth, apart from its functional expression or place, is also an individual. Man, apart from forming a molecule of the planetary womb, by comparison, is also an individual. And, lastly, every molecule of Man's organism is also, in reality, an individual, and small only by comparison with the human frame. And as there are the high Solar Archangels of the Sun, and a chief amongst these seated upon his throne of fire, so there is an Archangelic Chief of the Earth, surrounded by descending degrees of wisdom and power to Man, who also, in his turn, stands as the Deific center and chief of his being, his soul being the sphere of consciousness, which, when united to the feminine soul, constitutes the Angel of Life, Eternal. Down still we go, and find that this Divine scale of life and being is, from the lowly molecule, system upon system climbing, sphere upon sphere, upward and onward, forever, evermore, and all eternity cannot bring nearer the end of Man's glorious immortality.

In the full revelation of this divine scheme of creation, so full of light, life, love, joy and harmony, a scheme void of death and annihilation, the mind once more reflects upon the physical illusions of slowly advancing scientific thought. Camille Flammarion, the great psychomaterialist of France, has painted, in his various novels, a lurid, almost horrible, picture of what the mighty universe must become from the logical deductions of his own school of thought; a school which would be best named as transcendental materialism. According to this conception, "thousands, aye, millions of worlds are rushing through space, inert, frozen, and dead. Suns have cooled down and ceased to give forth the life-sustaining element of light, but have still retained their mighty attraction upon their attendant planets, according to the laws of gravity, by virtue of their material mass, and thus hold their planetary offspring in the eternal, cold, icy

grasp of death. Our Sun, too, is cooling fast; the Earth has already lost a great portion of her own internal heat. She has passed her prime of life, and death—cold, icy death—has already begun to encroach upon her extremities. The South pole (the feet) is now practically lifeless in one perpetual covering of ice. So, too, her head; her locks are the white of perpetual snow. No longer has she the blush and beauty of youth, no longer adorned with the healthy covering of verdue which youthfulness gives, and as our geologists prove was once the case. So that, although the time may still be long, according to our reckoning of years, it is only a brief moment in eternity when this fair Earth, and also the beauteous splendor of the silent stars, will be locked forever in darkness, and the final sleep of doom." If this be so, we ask of the inmost soul, if life be but the fitful awakenings of the indestructible spirit, ebbing and flowing in response to the rise and fall of Nature's cosmic barometer and the transmutations of matter; if life is, in reality, but a brief and passing moment, eternally repeated, from the flush of youth, "the gilded salon to the bier and the shroud, then why, O why should the spirit of mortal be proud?" Why aspire to penetrate the inward realities of life and enter the Holy of Holies—to seek and find out God? As the rushing torrent of this thought swept o'er the mental chambers of the soul and saturated the spirit with its icy sting, as it lay still chained within the prison house of matter, the higher self rose, sublime in its grandeur, and consciousness of divine relationship, and, in the last earthly appeal for light, for divine truth, as to Man and his immortality, it turned in reverence and awe before the still, shimmering veil of the sacred Penetralia. The trial had come, the crucial test, whether of life or death, the final revelation to Man. In purity of heart and humility of soul we await in agonizing suspense. There is a thrilling sensation, as though of ten thousand electric currents consuming the frame, and a swaying to and fro, as if drifting upon an ocean of fire; then a dead silence, so profound that whole eternities seem to pass, without either beginning or end. And the sight of the inward spirit is opened slowly. Who? Where? What? For the shadows have fled, the luminous curtain fades, is gone, and flashing before the inward sight stands the ineffable Adonai. It is I—YOU!

There is no God but this, and in one moment the interior consciousness becomes at-one-with-self, God, and from that inconceivable height of profound vision we again look upon Nature. Behold Sun, Moon and planets in all the original magnificence of their nebulous luminosity; from nebulous rings we proceed, stage after stage, each producing its own degrees of life. On, on we pass the ages, the geological cycles of inconceivable duration in time, but only a mere instant in eternity; and on and on, as the changes roll, until we see Earth as she is now; still on, at the ever-urging desire of the triumphant Soul, and a remarkable change is apparent. From forces, at present latent, there comes a change; and, instead of so-called physical; electrical races have superceded the present humanity. Crystallization has ceased; and all things become lighter in density and more ethereal in nature; AND THE ORBIT OF THE EARTH GROWS LESS. Nearer and nearer shines the mighty Sun; first Vulcan, then the swift messenger of the gods are indrawn within the solar vortex, each absorption producing a cataclysmic change upon our Earth. Then comes the turn of Venus, while slowly and surely the orbit of the Earth contracts, and nearer shines the Sun. And, finally, the beautiful Earth, her mission over, the last atom of life beyond her rule, inward she sweeps, and is lost in the mighty ocean of fire as a stone is lost in the lake. Verily is the word of prophecy a literal truth: "The Earth shall be destroyed with fire." And so on with the rest, each planet in its proper turn fulfilling the functions at present performed by the Earth, each becoming the grand theater of material and ethereal life, and the cometary bodies, to-day chasing unknown orbits in the realms of ether, gradually fall into line when their erratic cycle is ended, taking the places of the present outermost planets.

No such thing as death, no such thing as the dark silence of eternal night, for any organic creation of the Most High. From the Sun they come, and unto the Sun each must ultimately return, even as the body of Man, coming from the dust of Earth, must also return thereto, to be taken up in new forms and furnish substance for other degrees

of life. And thus will it be, until the Sun, in its mighty solar heavens of purified spiritual life, will form the last, the final battle ground of matter, receiving ITS NEW LIFE FROM A GREATER CENTER THAN ITSELF. A glorious solar world, well typified in the last Battle of the Gods, and the new Earth—a World whereon the Angels tread in superlatively beautiful forms, clothed with the ideals and emanations of their own divine purity—Souls clothed in Air, treading the ethereal Realms of Light, as the children of God, and the inheritors of the Kingdom of Heaven.

Must the searching eye of the Soul seek further? Must the insatiable thirst of the Spirit launch out upon the trackless infinities of the yet To Be? Must it still penetrate further in the profound beyond, where time ceases to be, where the past, present, and the future, are forever unknown, but exist only as the Deific consciousness of the eternal Now? No. The Soul at last rests satisfied. The final revelation is over.

My brother, we have done; and, in closing, have only to add that, not until the speculating philosophy of earthly schools blends with the Science of the Spheres in the full and perfect fruition of the wisdom of the ages, will Man KNOW and REVERENCE his Creator, and, in the silent Penetralia of his inmost being, respond, in unison with that Angelic Anthem of Life: "We Praise Thee, O God!"

*** END OF THE PROJECT GUTENBERG EBOOK THE LIGHT OF EGYPT; OR, THE SCIENCE OF THE SOUL AND THE STARS — VOLUME 2 ***

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Astral Worship

BY

J. H. Hill, M. D.

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"Now, what I want is—facts."—*Boz.*

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INTRODUCTION.

In an article, entitled "Then and Now," published in the December number, 1890, of "The Arena," its author, a distinguished Unitarian D.D. of Boston, Mass., says. "Astronomy has shattered the fallacies of Astrology;" and people have found out that the stars are minding their own business instead of meddling with theirs." Now, while it is true that modern Astronomy has superseded the ancient system, and people have ceased to believe that the stars are intervening in mundane affairs, nothing could be further from the truth than the assertion that "Astronomy has shattered the fallacies of Astrology; and those of our readers who will accord to this work an unprejudiced perusal can hardly fail to be convinced that a large majority of the people of Christendom are dominated as much by these fallacies as were our Pagan ancestry—the only difference being a change of name. The dogmatic element of religion, which was anciently designated as Astrology, is now known as Theology.

All the evidences bearing upon the subject indicate that the founders of the primary form of religion were a sect of philosophers, known as Magi, or wise men, of the Aryan race of Central Asia, who, having lived ages before any conceptions of the supernatural had obtained in the world, and speculating relative to the "beginnings of things," were necessarily confined to the contemplation and study of nature, the elements of which they believed to be self-existent and endless in duration; but, being wholly without knowledge of her inherent forces, they explained her manifold processes by conceiving the idea that she was animated by a great and inherent soul or spirit, emanations from which impressed all her parts with life and motion. Thus, endowing man, and other animals, with souls emanating alike from the imaginary great soul of nature, they believed, and taught, that immediately after death all souls were absorbed into their source, where, as "the dewdrop slips into the shining sea," all personal identity was forever lost. Hence we see that although recognizing the soul as immortal, considering it, not as an entity existing independent of matter, but as the spirit of matter itself, the primary religion was the exponent of the purest form of Materialism.

Being the Astronomers of their day, and mistaking the apparent for the real, the ancient Magi constructed that erroneous system of nature known as the Geocentric, and, in conformity thereto, composed a collection of Astronomical Allegories, in which the emanations from the imaginary great soul of nature, by which they believed all materialities we're impressed with life and motion, were personified and made to play their respective parts. Basing the religion they instituted upon their system of Allegorical Astronomy, and making its personifications the objects of worship, they thus originated the anthropomorphic or man-like Gods, and, claiming to have composed them under the inspiration of these self same divinities, they designated them as sacred records, or Scriptures, and taught the ignorant masses that they were literal histories, and their personifications real personages, who, having

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once lived upon earth, and; for the good of mankind, performed the wondrous works imputed to them, were then in heaven whence they came.

Thus we see that the primary religion, which is popularly known as Paganism, was founded in the worship of personified nature; that, according special homage to the imaginary genii of the stars, and inculcating supreme adoration to the divinity supposed to reside in the sun, it was anciently known by the general name of Astrolatry, and by the more specific one of solar worship; and that its founders, arrogating to themselves the title of Astrologers, gave to its dogmatic element the name of Astrology.

In studying the primitive forms of religion it will be found that none of them taught anything relative to a future life, for the simple reason that their founders had no conceptions of such a state. Hence it follows that the laws they enacted were intended solely for the regulation of their social relations, and, to secure their observance, they were embodied into their sacred records and made part of their religion. One form of that most ancient worship was known as Sabaism, or Sabism. Another form of the same religion was the Ancient Judaism, as portrayed in the Old Testament, and more especially in the Pentateuch, or first five books; in the Decalogue of which the only promise made for the observance of one of the Commandments is length of days on earth; and, in a general summing up of the blessings and curses to be enjoyed or suffered, for the observance or violation of the laws, as recorded in the 28th chapter of Deuteronomy, it will be seen they are all of a temporal character only. At the beginning of the Christian era there were still in existence a sect of Jews known as Sadducees, who were strict adherents to the primitive form of worship, and their belief relative to the state of the dead we find recorded in Ecclesiastes xii., 7, which reads: "Then shall the dust return to earth as it was, and the spirit shall return to God who gave it."

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For ages the doctrine of soul absorption, immediately after death, constituted the belief of mankind; but ultimately recognizing the fact that the temporal punishments of the existing laws were wholly inadequate to the prevention of crime, and conceiving the idea that the ignorant and vicious masses could be governed with a surer hand by appealing to the sentiments of hope and fear in relation to the rewards and punishments of an imaginary future life, the ancient Astrologers resolved to remodel the dogmatic elements of religion so as to include that doctrine. But realizing the necessity, of suppressing the belief in the absorption of all souls, immediately after death, they ceased to teach it, and ultimately it was embodied in that secret and unwritten system known as the Esoteric philosophy, in which the Astrologers formulated their own private belief, and which for many centuries was kept from the knowledge of the uninitiated by their successors in the priestly office. As they were the sole custodians of the Scriptures, they made do change in their verbiage, but, adding the doctrine of future rewards and punishments to that written and openly taught system of faith known as the Exoteric creed, they made it the more impressive by instituting a system of imposing rites and ceremonies, which they designated as Mysteries, into which they initiated the neophytes, and in which were portrayed, in the most vivid manner, the rewards and punishments of the imaginary future life, which they taught were the awards of the Gods for the observance or violation of the laws. These teachings were inculcated in the lesser degrees only, but those who were found worthy of so great a distinction were also inducted into the higher degrees, in which was imparted the knowledge of the Esoteric philosophy. In both the lesser and higher degrees the initiates received instruction in an oral manner only; and all were bound by the most fearful oaths not to reveal the secrets imparted to them.

Thus were the votaries of the ancient Astral worship divided into two distinct classes, the Esoterics, or Gnostics; and the Exoterics, or Agnostics; the former comprising those who knew that the Gods were mythical and the scriptures

allegorical; and the latter, those who were taught that the Gods were real, and the scriptures historical; or, in other words, it was philosophy for the cultured few, and religion for the ignorant multitude. The initiates into the secrets of these two systems recognized them as the two Gospels; and Paul must have had reference to them in his Epistle to the Galatians ii., 2, where he distinguishes the Gospel which he preached on ordinary occasions from that Gospel which he preached "privately to them which were of reputation."

Such was the system of Astrolatry, which, originating in the Orient, and becoming, after being remodelled in Egypt, the prototype of all Occidental forms of worship, was recognized, successively, as the state religion of the Grecian and Roman Empires; and we propose to describe the erroneous system of nature upon which it was based, and to develop the origins of its cycles, dogmas, ordinances, anniversaries, personifications and symbols, with the view to proving that it was the very same system which was ultimately perpetuated under the name of Christianity. We also propose to present the origins and abridged histories of its two forms, the Jewish, or ancient, and the Roman, or modern; and to give an account of the conflict between the votaries of the latter, and the adherents to the established form of worship, which culminated in the fourth century in the substitution of Christianity as the state religion of the Roman Empire. We furthermore propose to show the changes to which the creed and scriptures were subjected during the Middle Ages, and at the Reformation in the sixteenth century, through which they assumed the phases as now taught in the theologies, respectively of Catholicism and Orthodox Protestantism. We also present an article relative to Freemasonry and Druidism, for the purpose of showing that, primarily, they were but different forms of the ancient Astrolatry. We also devote a few pages to the subjects of the Sabbath, and to that of "Pious Frauds."

Note.—For the matter published in this work, we are principally indebted to the writings of Robert Taylor, an erudite but recusant minister of the church of England, who flourished about seventy years

ago, and who, being too honest to continue to preach what, after thorough investigation, he did not believe, began to give expression to his doubts by writing and lecturing. Not being able to cope with his arguments, the clergy, under the charge of the impossible crime of blasphemy, had him imprisoned for more than two years, during which time he wrote his great work entitled "The Diegesis," which should be read by all persons who are investigating the claim of the Christian religion to Divine authenticity.

THE GEOCENTRIC SYSTEM OF NATURE.

In constructing their system of nature, the ancient Astronomers constituted it of the Earth, the Firmament, the Planets, the Constellations and the Zodiac, and we will refer to them in the order named.

The Earth.

Believing that the earth was the only world, that it was a vast circular plane, and that it was the fixed and immovable center around which revolved the celestial luminaries, the ancient Astronomers, in conformity to the requirement of the doctrine of future rewards and punishments, as inculcated in the Egyptian Version of the Exoteric Creed, divided it into an upper and an under, or nether world, which they connected by a sinuous and tenebrious passage.

The Firmament.

The azure dome, called the firmament in the book of Genesis, was believed to be a solid transparency, which we find described, in the fourth chapter and sixth verse, of that collection of Astronomical Allegories, called the Apocalypse, or Book of Revelation, "as a sea of glass like unto crystal." It was represented as being supported by four pillars, resting upon the earth, one at each of the cardinal points, which were designated as "the pillars of heaven." Conceiving the idea that there were windows in the firmament, the ancient Astronomers called them "the windows of heaven" and

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taught that they were opened when it rained, and closed when it ceased to rain. Hence it is evident that the ancient Astronomers did not refer to these pillars and windows in a figurative sense, but as real appurtenances to a solid firmament, as will be seen by reference to Gen. vii. 11, and viii. 2, Job xxvi. 11, and Malachi iii. 10.

The Planets.

Believing that the stars were but mere flambeaux, suspended beneath the firmament, and revolving round the earth, for the sole purpose of giving it light and heat; and observing that seven of these, answering to the Sun, Moon, Mercury, Venus, Mars, Jupiter and Saturn, had perceptible movements, in relation to the other luminaries, the ancient astronomers designated them as planets or wandering stars.

The Constellations.

Perceiving that the other celestial luminaries maintained the same relation to each other, and designating them as fixed stars, the ancient astronomers grouped those visible to them into forty-eight Constellations; and giving names to these, they also attached names to the stars of larger magnitude, which was done for the purpose of locating and distinguishing them with greater ease.

The Zodiac.

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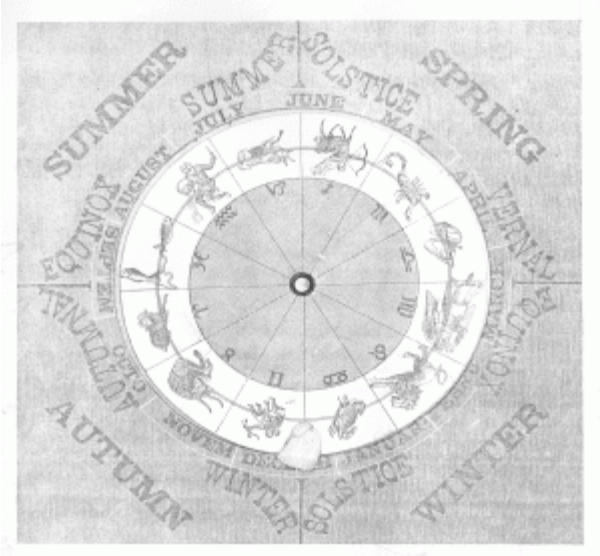


Through twelve of these Constellations, mostly contained within a belt of 16 degrees in width, and within which the planets appeared to revolve, the ancient astronomers inscribed a central line representing the Ecliptic, or apparent orbit of the sun, which they divided into 360 degrees; and quartering these to denote the seasons, they named the cardinal points the Summer and Winter Solstices, and the Vernal and Autumnal Equinoxes; the former referring to the longest and shortest days of the year; and the latter to the two periods when the days and nights are equal. An abbreviatory sign having been attached to each of these constellations, the great celestial belt containing them was called "the wheel of the signs," or "a wheel in the middle of a wheel," as designated by that old Astrologer, Ezekiel the Prophet, in chap. i. and 16th verse. But for the reason that, with only one exception, the forms of living things, either real or mythical, were given to them, this belt, ultimately, wad designated as the Zodiac; or Circle of living Creatures, see Ezekiel, chap. i. Constituting the essential feature of the ancient Astronomy, we present, in our frontispiece, a diagram of the Zodiac, as anciently represented, to which, as well as to Burritts' Celestial Atlas, our readers will be necessitated to make frequent reference.

Recent researches among the ruins of ancient cities have developed the fact that several centuries before the beginning of our era the astronomers had invented the

telescope, and discovered the true or heliocentric system of nature; but for the reason that religion had been based upon the false, or geocentric system, it was deemed prudent not to teach it to the masses. Hence, hiding it away among the other secrets of the Esoteric philosophy, the knowledge of it was lost during the Middle Ages; and when rediscovered, the hierarchy of the Church of Rome, upon the plea that it was contrary to the teachings of Scripture, resorted to inquisitorial tortures to suppress its promulgation; but, in spite of all their efforts, it has been universally accepted; and, in this otherwise enlightened age, we have presented to us the anomaly of a religion based upon a false system of Astronomy, while its votaries believe in the true system.

THE SACRED NUMBERS 7 AND 12.

In reference to the planets, and the signs of the Zodiac, the numbers seven and twelve were recognized as sacred by the ancient Astrologers, and dedications were made to them in all kinds and sorts of forms. In the allegories, the genii of the planets were designated as spirits or messengers to the Supreme Deity, imaginarily enthroned above the firmament, which we find described in Revelations iv. 5, as "Seven lamps of fire burning before the throne, which are the seven spirits of God;" and which were represented by lights burning in seven branched candlesticks set before the altars in the temples; the central light for the Sun; the Moon, Mercury and Venus on one side; and Mars, Jupiter and Saturn on the other. The seven branched candlesticks seen in all Catholic churches, and in some Protestant ones, are intended to represent the same planetary system.

Among the numerous dedications to the genii of the planets we mention the seven days of the week, the seven stories of the tower of Babylon, the seven gates of

Thebes, the seven piped flute of Pan, the seven stringed lyre of Apollo, the seven books of fate, the book of seven seals, the seven castes into which the Egyptians and East Indians were divided, and the jubilee of seven times seven years. Among the dedications to the twelve signs we mention the twelve months of the year, the grand cycle of 12,000 years, the twelve altars of James, the twelve labors of Hercules, the twelve divisions of the Egyptian Labyrinth, the twelve shields of Mars, the twelve precious stones, ranged in threes to denote the seasons, in the breastplate of High Priest, the twelve foundations of the Sacred City, referred to in the Book of Revelation, the twelve sons of Jacob, the twelve tribes of Israel, and the twelve Disciples. In the Book of Revelation alone the number 7 is repeated twenty-four times, and the number 12 fourteen times.

THE TWELVE THOUSAND YEAR CYCLE.

In determining the duration of the period within which were to occur the events taught in the doctrines of the Exoteric Creed, the ancient Astrologers dedicated a thousand years to each of the signs of the Zodiac, and thus inaugurating the cycle of twelve thousand years, taught that, at its conclusion, the heaven and the earth, which they believed to be composed of the indestructible elements of fire, air, earth and water, would, through the agency of the first of these, be reduced to chaos, as a preliminary to the reorganization of a new heaven and a new earth at the beginning of the succeeding cycle. Such was the origin of the grand cycle of the ancient Astrolatry, and it must be borne in mind that its authors made its conclusion to correspond in time and circumstance to the doctrines relating to the finale of the plan of redemption.

THE ANCIENT TRIAD.

After conceiving the idea of a primeval chaos, constituted of four indestructible elements of which fire was the leading one, the Oriental astrologers began to indulge in speculations relative to the agencies which were engaged in its organization. Having no knowledge of the forces inherent in nature, they imputed this work to three intelligences, which, embodying the All in All, they personified by the figure of a man with three heads, and to this trinity gave the names of Brahma, Vishnu and Siva. Such a figure, carved in stone, may be seen in the island Cave of Elephanta, near Bombay, India, and is popularly believed to represent the Creator, Preserver and Destroyer; but, in determining their true signification, we must be governed by the ancient teachings that "All things were made by one god-head with three names, and this God is all things." Hence the conclusion is irresistible that the first person represents neither the creator nor organizer of chaos, but chaos itself; the second person, its organizer and governor; and the third person, the agent in nature which impresses all her parts with life and motion; the latter being the imaginary great soul or spirit inculcated in the Esoteric philosophy. In support of this opinion it will be found that the Egyptian Triad of Father, Son and Spirit is virtually the same we have assigned to its Oriental prototype. Thus we see that to the ancient Astrolatry Christendom is indebted for the Trinity of

"God the Father, God the Son,
God the Spirit—three in one."

But, having ascribed supreme intelligence or reason to its second person, under the name of the Logos, or Word, and designating its third person as the Holy Ghost, the ancient Triad was usually formulated as the Father, the Word and the Holy Ghost, as

may be seen by reference to the text in the allegories which we find recorded in I John v. 7, which reads that "There are three that bear record in heaven, the Father, the Word and the Holy Ghost, and these three are one."

Considered in some forms of Astrolatry as too sacred to attach a name to the triune Deity, he was called "the One," and we find him thus designated in the 4th chapter of Revelation, where, like Zeus and Jupiter, of the Grecian and Roman mythologies, he is represented as seated above the firmament, upon a throne from which "proceeded lightnings and thunderings," and to whom all, the subordinate divinities were made to pay homage. As the hurler of thunderbolts he was called "the Thunderer," and as the opener of the windows of heaven, when it rained, he was designated "Jupiter Pluvius." Such was the ancient Triad made to say of himself, in an inscription found in the ruins of the temple at Sais in Egypt, "I am all that has been, all that is, and all that shall be, and no mortal has lifted yet the veil that covers me;" and such was the Triunity referred to as the God Universe by Pliny, the Roman philosopher and naturalist, who, flourishing in the first century of the Christian era, wrote that he is "An infinite God which has never been created, and which shall never come to an end. To look for something else beyond it is useless labor for man and out of his reach. Behold that truly sacred Being, eternal and immense, which includes within itself everything; it is All in All, or rather itself is All. It is the work of nature, and itself is nature."

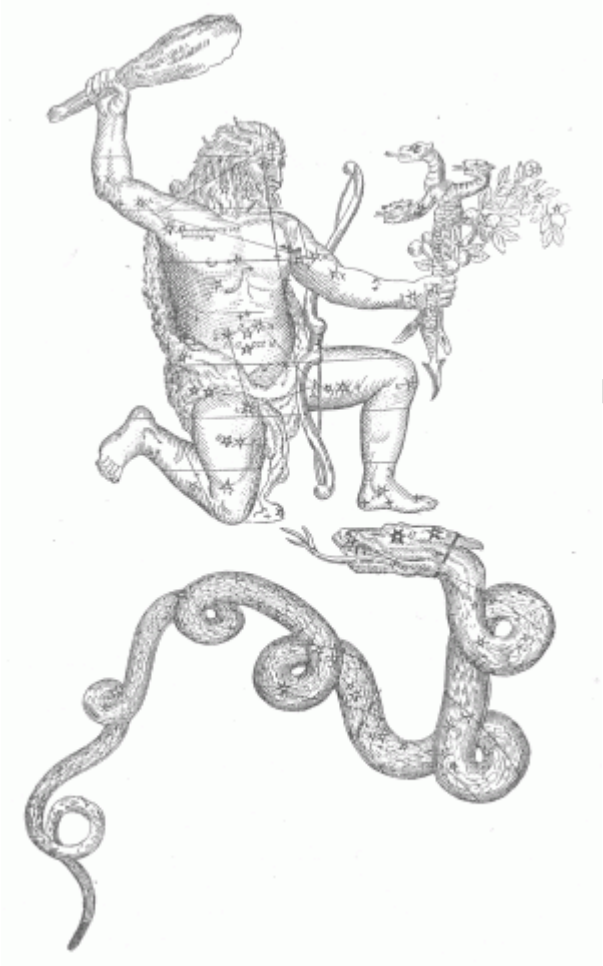
Thus we see that, although inculcating homage to a multitude of subordinate divinities, the ancient Astrolatry was only an apparent Polytheism; its enlightened votaries, recognizing the dogma of the unity of God, were in reality Monotheists, paying supreme adoration to the mythical genius of the Sun, to whom we will now direct attention.

GOD SOL.

In determining the characteristics of the supreme divinity of astral worship, it must be borne in mind that its founders taught that he was evolved or engendered by the Father, or first person in the sacred Triad, from his pure substance, which as we have shown was constituted of chaos or the primeval fire into which they supposed all things were reduced through the agency of that element at the conclusion of 12,000 year cycles. Hence, designating that mythical being as the only begotten of the Father, they personified him as God the Son, or second person in the sacred Triad; and recognizing the Sun as the ruling star, very appropriately made him the presiding genius of that luminary, under the title of God Sol. According homage to light as his chief attribute, he is referred to in the allegories as "The true Light, which lighteth every man that cometh into the world," John i., 9; and, although designated as the only begotten of the Father, his co-existence with him, under the title of the Logos or Word, is shown in the text which reads, "In the beginning was the Word, and the Word was with God, and the Word was God," John i., 1.

Personifying the principles of Good and Evil in God Sol, the ancient Astrologers consecrated the six divisions of the 12,000 year cycle, corresponding to the reproductive months of Spring and Summer, to him as Lord of Good, and symbolizing him by the constellation of the Zodiac in which the Vernal Equinox successively occurred, as explained hereafter, they dedicated the six divisions of that cycle, corresponding to the destructive months of Autumn and Winter, to him as Lord of Evil, and as such, symbolizing him by the serpent, marked the beginning of his reign by the constellation "Serpens," placed in conjunction with the Autumnal Equinox. Personifying in him the opposing principles of Good and Evil, he was to the ancients both God and Devil, or the varied God, who, in relation to the seasons, was described as beautiful in Spring, powerful in Summer, beneficent in Autumn and

terrible in Winter. Thus under various names, intended to represent God Sol in relation to the diversified seasons, we find recorded in the Scriptures, or solar fables, numerous portrayals of imaginary conflicts, in which the Evil principle, triumphing during Autumn and Winter, is conquered at the Vernal Equinox by the Good principle, who, bringing back equal days and nights, restores the harmony of nature.



The eternal enmity between the principles of Good and Evil, as manifested in the diversity of the seasons, we find portrayed in the Constellations Hercules and Draco, placed in the northern heavens, in which the heel of the former, representing one of the most ancient of the imaginary incarnations of God Sol, to which we will refer hereafter, is resting upon the head of the latter, as referred to in Genesis iii., 15, which makes God Sol, or the Lord God, say to the serpent, "I will put enmity between thee and the woman, and between thy

seed and her seed; it shall bruise thy head, and thou shalt bruise his heel." The woman alluded to in this text is the Virgo of the Zodiac, as will be made apparent hereafter.

Of all the divinities of the ancient mythology God Sol was the only one distinguished by the exalted title of Lord or Lord God, for the reason that he was made the organizer of chaos and governor of heaven and earth. Hence, having constituted him the lord of light and darkness, as well as good and evil, the ancient astrologers in composing the solar fables made him say of himself, "I form the light and create darkness; I make peace and create evil, I the Lord do all these things," Isaiah xlv., 7. "Shall there be evil in a city, and the Lord hath not done it?" Amos iii., 6. Besides the title of Lord or Lord God, the solar divinity is also designated in the allegories as the Lord of Lords and the King of Kings, the Invincible, the Mighty God, etc.

Subjecting the mythical genius of the sun, in his apparent annual revolution round the earth, to the four stages of human life from infancy to old age, the ancient Magi fixed the natal day of the young God Sol at the winter solstice, the Virgo of the Zodiac was made his mother, and the constellation

in conjunction with her, which is now known as Bootes, but anciently called Arcturus, his foster father. He is represented as holding in leash two hunting dogs and driving Ursa Major, or the Great Bear, around the north pole, thus showing that the original occupation of the celestial foster father of the young God Sol was that of a bear driver, and that his sons, referred to in job xxxviii., 32, are the dogs Asterion and Chara. It will be observed that Virgo is represented in our illustration with a child in her arms, for the reason that she is so represented in the ancient Zodiacs, and the fact will be readily conceded that she is the only Virgin who could give birth to a child and be a virgin still.

THE ANCIENT COSMOGONY.

Speculating relative to the order in which chaos had been organized, the ancient Astrologers constructed a Cosmogony, which divided the labors of God the Son, or second person in the Trinity, into six periods of a thousand years each; and which, answering to the six divisions of the 12,000 year cycle corresponding to the reproductive months of Spring and Summer, taught that in the first period he made the earth; in the second, the firmament; in the third, vegetation; in the fourth, the Sun and Moon and "the stars also;" in the fifth, the animals, fishes, birds, etc., and in the sixth, Man.

That vegetation was made before the Sun was not an inconsistent idea to the originators of the ancient Cosmogony. They imagined that the heat and light, emanating from the elementary fire, were sufficient to stimulate its growth, after which God the Son gathered it together and made the Celestial luminaries. In the solar fables this imaginary element is called the fire-ether, or sacred fire of the stars.

FALL AND REDEMPTION OF MAN.

Religion having been based upon the worship of personified nature, it is evident that its founders fabricated its dogmatic element from their conceptions of her destructive and reproductive processes as manifested in the rotation and diversity of the seasons. The apparent retreat of the sun from the earth, in winter, and his return in the spring, suggesting the idea of a figurative death and resurrection of the genius of that luminary, they applied these phenomena of the year to man, and composed the allegories relative to his fall and redemption, as inculcated in the Exoteric Creed. In the allegory relating to the fall, it was taught that, after making the first human pair, the Lord of Good or the Lord God placed them in a beautiful garden—corresponding to the seasons of fruits and flowers or months of Spring and Summer, with the injunction, under a penalty, not to eat of the fruit of a certain tree. When the Lord of Evil, or Devil, symbolized by the serpent and represented by the constellation "Serpens" placed in conjunction with the Autumnal Equinox, meeting them on the confines of his dominion, and tempting the woman, and she the man, they ate of the forbidden fruit; thus, falling from their first estate, and committing the original sin, they involved the whole human race in the consequences of their disobedience. Then the Lord God, pronouncing a curse against the serpent, clothed the man and woman with skins to protect them against the inclemency of his, dominion as Lord of Evil, and drove them from the garden; after which they were necessitated to earn their bread by tilling the ground.

In, reference to the plan of redemption, the ancient Astrologers divided the 6,000 years appropriated to man, as the duration of his race on earth, into ten equal cycles, and taught that at the conclusion of each God Sol, as Lord of Good, would manifest

himself in the flesh, to destroy his works as Lord of Evil, and through suffering and death make an atonement for sin. Thus having originated the doctrines of original sin, incarnation and vicarious atonement, as parts of the plan of redemption, and making its finale correspond, in point of time, to the conclusion of the 12,000 year cycle, their successors in the priestly office ultimately inculcated the additional dogmas of the general judgment and future rewards and punishments, as we have shown in our introduction.

Having based the fables of the fall and redemption of man upon the idea that he was impelled, without his volition, to pass from the dominion of God to that of the Devil, or in other words, upon his subjection to the inexorable necessity which makes the inclement seasons of Autumn and Winter succeed the beneficent ones of Spring and Summer, its authors composed the original of the text which, found in Romans viii., 20, reads that "The creature was made subject to vanity (Evil), not willingly, but by reason of him who hath subjected the same in hope."

But for the popular teaching in favor of its being literal history, no one could read the account of the fall of man, as recorded in the third chapter of Genesis, without recognizing it as simply an allegory; or fail to realize, the force of the argument of no fall, no redemption, and if no redemption, no God to reward or Devil to punish; no hell to suffer, or heaven to enjoy. The fact is that these are but antithetical ideas which came in together, and must survive or perish together. They cannot be separated without destroying the whole theological fabric.

INCARNATIONS OF GOD SOL.

Believing that God Sol was necessitated to remain at his post to direct the course of the sun, the ancient astrologers conceived the idea of teaching that, attended by a retinue of subordinate genii, he descended to earth through the medium of incarnations at the end of 600 year cycles, to perform the work of man's redemption and, having made Virgo of the Zodiac the mother of the Solar divinity, they taught in their allegorical Astronomy, or scriptures, that his incarnations were born of a Virgin. Hence we find that God Sol, usually designated by the title of the Word, "was made flesh, and dwelt among us." John i., 14.

In a discourse upon this text delivered by Tillotson, Archbishop of Canterbury, in the year 1680, published in the fourth volume of Woodhouse's edition of his Grace's sermons, in the year 1744, concerning the Incarnation of our blessed Saviour, he explains the necessity of incarnation by saying that "There was likewise a great inclination in mankind to the worship of a visible Deity, so God was pleased to appear in our nature, that they, who were so fond of a visible Deity, might have one, even a true and natural image of God the Father, the express image of his person." It only requires a little reflection to appreciate the Prelate's covert irony and want of faith.

Having ascribed to the imaginary incarnations of God Sol the characteristics of heaven-descending, virgin-born, earth-walking, wonder-working, dying, resuscitated and ascending sons of God, the ancient Astrologers attached to them the several titles of Saviour, Redeemer, Avatar, Divine-Helper, Shiloh, Messiah, Christ; and, in reference to their foster-father, that of Son of Man. Teaching that they continued to make intercession for sin, after their ascension to the right hand of the Father, they were also called Intercessors, Mediators or Advocates with the Father. From teaching their appearance every 600 years originated the Egyptian legend of the Phoenix, a bird said to descend from the sun at these intervals, and, after being consumed upon the altar in the temple of On, or city of the sun—called Heliopolis by

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the Greeks—would rise from its ashes and ascend to its source. According to the civil laws of Egypt, manhood was not attained until the age of thirty years. Hence the earthly mission of incarnate Saviours was made to begin at that age; and for the reason that, relating to the apparent transit of the sun through the twelve signs of the Zodiac, it was completed during the period of one year.

To impress the ignorant masses with the belief that the scriptures were literal histories, and the incarnate Saviours real personages, the ancient Astrologers caused tombs to be erected in which it was claimed they were buried. Such sepulchres were erected to Hercules at Cadiz, to Apollo at Delphi, and to other Saviours at many other places, to which their respective votaries were induced to perform pilgrimages. In Egypt the pyramids were built, partly for astronomical purposes, and partly as tombs for Saviours, claimed to have been kings, who had once ruled over the country; and why should we not recognize that magnificent structure known as the Church of the Holy Sepulchre, at Jerusalem, as but another of those tombs of Saviours in which no Saviour was ever entombed?

Thus we have shown that it was God Sol, the only begotten of the Father, or second person in the sacred Triad, to whom supreme adoration was inculcated in all forms of the ancient Astrolatry; and that its cultured votaries, understanding that the doctrines pertaining to the fall and redemption of man were evolved from the figurative death and resurrection of the solar divinity, recognized the doctrine of incarnation as a priestly invention intended only for the ignorant masses.

FABLE OF THE TWELVE LABORS.

The authors of the original solar fables, having lived in that remote age in which physical prowess was recognized as the highest attribute of humanity, conceived the idea that God Sol, while passing through his apparent orbit, had to fight his way with the animals of the Zodiac, and with others in conjunction with them. Hence, designating him as the Mighty Hunter, and calling his exploits the twelve labors, they made the incarnate Saviours the heroes of similar ones on earth, which they taught were performed for the good of mankind; and that, after fulfilling their earthly mission, they were exhaled to heaven through the agency of fire. When these fables were composed the Summer Solstice was in the sign of Leo, and making the twelve labors begin in it, the first consisted in the killing of a lion, and the second, in rescuing a virgin (Virgo) by the destruction of a Hydra, the constellation in conjunction with her. Upon one of the Assyrian marbles on exhibition in the British Museum these two labors are represented as having been performed by a saviour by the name of Nimroud. In the constellations of Taurus, the bull of the Zodiac, and of Orion, originally known as Horns, in conjunction therewith, we have groupings of stars representing the latter as one of the mighty hunters of the ancient Astrolatry, supporting on his left arm the shield of the lion's skin, the trophy of the first labor, and holding a club in his uplifted right hand, is engaged in performing the tenth labor by a conflict with the former.

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The fable of the twelve labors constituted the sacred records or scriptures of the older forms of Astrolatry, one version of which, written with the cuneiform character upon twelve tablets of burnt clay, exhumed from the ruins of an Assyrian city, and now on exhibition in the British Museum, is ascribed to Nimroud, the prototype of the Grecian Hercules, and of Nimrod, the Mighty Hunter of the Old Testament.

ANNIVERSARIES OF SOLAR WORSHIP.

The Nativity.

Applying the anniversaries inculcated in the worship of God Sol to his imaginary incarnations, the founders of the ancient Astrolatry made them refer to the several stages of human existence from infancy to mature age. Hence, comparing the first day of infantile life to the shortest day of the year, it would naturally be expected that they would have placed the anniversary of the Nativity exactly at the Winter solstice; but, having conceived the idea that the sun stood still for the space of three days at each of the cardinal points, and making it represent the figurative death of the genius of that luminary, they fixed the date for its observance three days later, or on the 25th of December. The Gnostic adherents to the ancient solar worship, or those who were conversant with the teachings of the Esoteric philosophy, knowing that the dramatis personæ of the fable of incarnation were pictured with stars upon the azure vault, recognized the woman "clothed with the sun, and the moon under her feet, and upon her head a crown of twelve stars," referred to in Revelations xii. 1, as the Virgo of the Zodiac; they also knew that she was the true queen of heaven and mother of God; and that the infant, anciently represented in her arms, and with whom, in their day, she

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arose on the Eastern horizon at midnight on the 24th of December, was the same of whom the people were taught to sing at Christmas "Unto us a child is born this day."

With the knowledge of these facts we can readily see that this is the Virgin and child which constituted the originals of those exquisite paintings, by the old masters, known as the Madonna and Child.

Epiphany or Twelfth Day.

In reference to the twelve signs through which the sun makes his apparent annual revolution, the twelfth day after Christmas, answering to the 6th of January, was observed by the votaries of the ancient Astrolatry as the anniversary of the Epiphany or Twelfth Day. In the solar fables, it was taught that a star appeared in the heavens on that day to manifest the birthplace of the infant Saviour to the Magi or Wise Men of the East, who came to pay him homage, and to present him with the gifts of gold, frankincense and myrrh, as related in Matthew ii. 11.

The reason for presenting these gifts is explained by the facts that of the seven metals dedicated to the genii of the planets, gold was the one consecrated to God Sol; and frankincense and myrrh were the gums burned in censers in his worship.

In reading the account of the Magi's visit to the infant Saviour, we have but to exercise our thinking faculties to realize that it is allegory instead of literal history.

Lent or Lenten Season.

In the ancient solar fables it was taught that the persecutions to which the incarnate Saviours were subjected while passing through the dominion of God Sol as Lord of Evil, raged with greatest fury during the forty days preceding the festival of Easter, which period, beginning when the days were perceptibly lengthening, was called Lent,

or the Lenten season. It was during this season that the votaries of the ancient religion were taught to manifest their sympathy for the Saviour in his imaginary conflict with the Devil by abstaining from all festivities, and by fasting and prayer; and, as that was the season in which the flocks and herds were poor in flesh, while the seas and rivers abounded with fish in good condition, the ancient priests, making a virtue of necessity, enjoined a diet principally of fish, and for that reason placed the constellation Pisces at the point in the Zodiac in which the Lenten season anciently began; which, without regard to the day of the week, was always observed on the 15th day of February, the name of that month having been derived from the Februa, or feast of purification and expiation of the old Roman calendar.

At the council of Nice the Lenten season was made to begin on the fourth day of the week, and in reference to the ancient custom of the more devout sprinkling ashes upon their heads at the feast of the Februa, it is called Ash Wednesday.

Hence we see that all years in which Ash Wednesday does not come on the 15th of February, the Lenten season must necessarily contain a greater or lesser number than the original assignment of forty days.

Passion Week.

The last seven days of Lent is called Passion Week, in reference to the apparent passage of the sun across the Celestial equator at the Vernal Equinox or 21st of March; the ancient astrologers having conceived the idea that the sun stood still for the space of three days at each of the cardinal points, and making it represent the figurative death of the genius of that luminary, it was observed as the anniversary of the Vernal crucifixion or passion of the incarnate Saviours; and in commemoration of their imaginary sufferings and death it was the custom to expose in the temples during the last three days of Passion Week figures representing their dead bodies, over which

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the votaries of solar worship, especially the women, made great lamentation. It was in reference to one of these images, laid out in the temple at Jerusalem, to which the jealous Jehovah, considering it a great abomination in his own house, is made to direct the attention of Ezekiel, the prophet, who, looking, beheld "Women weeping for Tammuz" as recorded in the eighth chapter. This divinity was the Phoenician prototype of the Grecian Adonis, to whom the women of Judea preferred to pay homage.

It was during the last three days of Passion Week that the votaries of solar worship performed their severest penance. Besides fasting and prayer, the more devout flagellated and slashed themselves and others with knives and thongs, and carried heavy crosses up steep acclivities. In all ultra-Catholic countries the priests, in imitation of the ancient custom, expose in the churches figures representing the dead Saviour, over which the laity, especially the women, weep and mourn; and the more devout men cut and slash themselves, and each other, with knives and thongs; and, in imitation of the imaginary tramp of Jesus with his cross up Calvary's rugged side, bear heavy crosses up steep acclivities.

Passion Plays.

Anciently dramas representing the passion of incarnate saviours, called Passion plays, were enacted upon the stage. The most celebrated of these divine tragedies, known as Prometheus Bound, and composed by the Greek poet Æschylus, was played at Athens 500 years before the beginning of the Christian era. To show that this sin-atoning saviour was not chained to a rock, while vultures preyed upon his vitals, as popularly taught, but was nailed to a tree; we quote front Potter's translation of the play, that passage which, readily recognized as the original of a Christian song, reads as follows:

"Lo, streaming from the fatal tree,
His all atoning blood:
Is this the infinite? 'Tis he—
Prometheus and a God.
Well might the sun in darkness hide,
And veil his glories in,
When God the great Prometheus died
For man, the creature's sin."

The veiling of the sun, as represented in these plays, having reference to the imaginary sympathy expressed by God Sol for the sufferings of his incarnate son, was shown upon the stage by shading the lights. The monks of the Middle Ages enacted plays representing the passion of the Christian Saviour, and the Bavarian peasantry, perpetuating this custom, perform the play every tenth year.

Resurrection and Easter Festival.

In conformity to the ancient teachings, the incarnate saviours, considered as figuratively dead for the space of three days at the Vernal Equinox, or 21st of March, were raised to newness of life after the expiration of that time. Hence, the 25th of March, without regard to the day of the week, was celebrated as the anniversary of the Vernal resurrection. On the morning of this day it was the custom of the astrologers to say to the mourners assembled in the temples, "Be of good cheer, sacred band of initiates; your God has risen from the dead, his pains and his sufferings shall be your salvation." Another form of this admonition, quoted from an ancient poem in reference to the Phoenician Tammuz, reads as follows:

"Trust ye saints, your God restored,
Trust ye in your risen Lord,

For the pains which he endured,
Your salvation hath procured."

Then would begin the festivities of Easter, which corrupted from Eostre, and derived from the Teutonic mythology, was one of the many names given to the goddess of Spring. In the observance of this festival the temples were adorned with floral offerings; the Hilaries sang their joyful lays; the fires upon the pyres, or the fire-altars, were extinguished and rekindled with new fire, or sacred fire of the stars, which the Astrologers taught was brought down from heaven by the winged genius Perseus, the constellation which, anciently, was in conjunction with the Vernal Equinox; Paschal candles, lit from the new fire, were distributed to the faithful and the Paschal feast, Easter feast, or the feast of the passover, was eaten in commemoration of the passion of the incarnate saviours, or, in other words, of the passage of the sun across the celestial equator. In ultra-Catholic countries the descent of the sacred fire is represented by some secretly arranged pyrotechny, and the credulous laity, believing they have witnessed a miraculous display, eagerly solicit Paschal candles lit from it; and in imitation of the ancient festivities in honor of the return of spring, all Catholic churches, and most of Protestant ones, are adorned with flowers, the bells ring out their merriest peals, and "Gloria in Excelsis" and other jubilant songs, similar to the lays of the ancient Hilaries, are sung.

Annunciation.

The anniversary of the Nativity having been placed on the 25th of December, according to the course of nature, the 25th of March was anciently celebrated as the anniversary of the annunciation, and is still observed on that day, and the duty of saluting the Virgin (Virgo) and announcing her conception by the Holy Ghost or third person in the Trinity was assigned to the genius of Spring. In the Chaldean version of the Gospel story the name of Gabriel was given to this personification, and in the

Christian version of that story he is made to perform the same office; see Luke i. 26-35.

Ascension.

Celebrating the anniversary of the ascension forty days after Easter, it was anciently observed on the 4th of May, and it was taught that the incarnate saviours ascended bodily into heaven, in a golden chariot drawn by four horses caparisoned with gilded trappings, all glittering like fire in the fervid sunlight. Hence when we read in II. Kings ii. 11, that "There appeared a chariot of fire and horses of fire, . . . and Elijah went up by a whirlwind into heaven," we must accept this text as descriptive of the imaginary ascension of one of the incarnate saviours of ancient Judaism.

Assumption.

When the Summer solstice was in the sign of Cancer, the sun was in that of Virgo in the month of August, and the anniversary of the Assumption was observed on the 15th of that month, and is so observed at the present time. The fact that the anniversary of the Ascension precedes that of the Assumption explains why Jesus is made to say to his mother (Virgo) soon after his resurrection, "Touch me not: for I am not yet ascended to my Father." John xx. 17.

The Lord's Supper.

In the ancient solar worship the so-called ordinance of the Lord's Supper was observed just before the anniversary of the autumnal crucifixion; and consisting of bread and wine, in reference to the maturing of the crops and completion of the vintage, was, like the modern festival of the hardest home, a season of thankfulness to the Lord (God Sol) as the giver of all good gifts. Hence being observed but once a

year, it was in reality not an ordinance but an anniversary; and the fact that Christians partake of these emblems so frequently during the year indicates that the original signification of the Lord's Supper has been lost.

Transubstantiation,

or the conversion of the bread and wine into the veritable blood and body of Christ, is a doctrine of the Catholic church which was derived from the ritual of the ancient solar worship.

In the 26th chapter of Matthew we have an account of the Lord administering the last supper to his Disciples on the eve of the autumnal crucifixion, and in verse 27 it reads that "he took the cup, and gave thanks, and gave it to them, saying, Drink ye all of it." The compilers of the modern version of the Gospel story must surely have inadvertently copied this text as it read in the ancient versions of that old, old story, which, when observed in remembrance of "Our Lord and Saviour Bacchus," was called the Bacchanalia, or feast, of Bacchus. At these orgies the participants give thanks for the wine by not only drinking all of one cup, but many more; in fact they kept on drinking until they fell under the table.

Autumnal Crucifixion.

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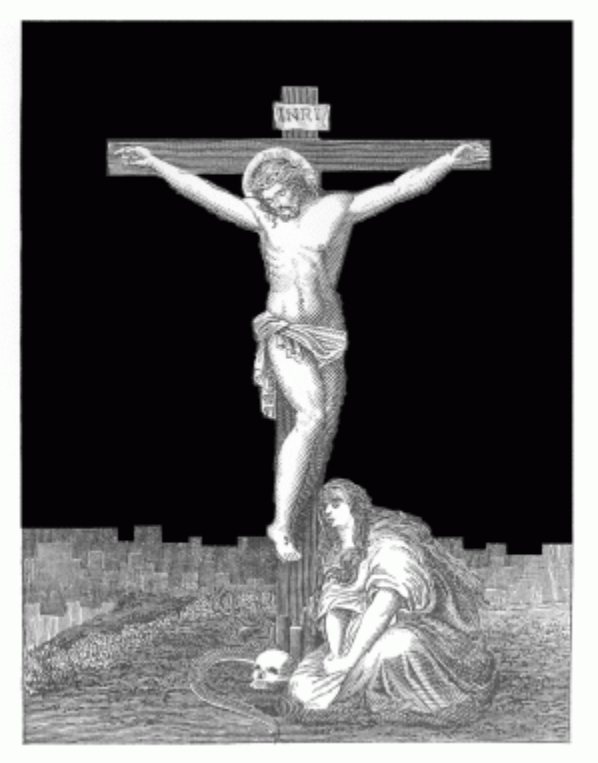

The beneficent seasons of Spring and Summer coming to an end at the Autumnal Equinox, the 22d of September was made the anniversary of the Autumnal

Crucifixion. The vernal resurrection and Autumnal Crucifixion, representing the alternate triumph of the personified principles of Good and Evil, as manifested in the diversity of the seasons; we find appropriately expressed in two religious pictures. In the one, the Saviour, appealing as a vigorous young man, surrounded by a brilliant halo, representing the rays of the all-conquering Sun of Spring, is rising triumphantly from the tomb, before whom the demon of Winter, or Devil, is seen retreating in the background. In the other, the vanquished Saviour, represented by the figure of a lean and haggard man, with a crown of thorns upon his head, around which appears a faint halo of the Sun's declining rays, and above which is placarded the letters I. N. R. I., the initial letters of Latin words, signifying the life to come, or the eternal life, is suspended upon the cross, at the foot of which his mother Mary (Virgo) is represented as kneeling in a mourning attitude, and by her side is seen a serpent and a skull, the emblems of Evil and of Death.

Michaelmas.

In the calendar of the ancient Astral Worship, the fourth day after the Autumnal Equinox was dedicated to the genius of Autumn. In the Chaldean allegories the name of Michael was given to this personification, and called Michaelmas, or feast of Michael. In the Catholic calendar this anniversary is placed an the 29th of September, instead of the 26th of that month, while that of St. Matthew, the Christian genius of Autumn, which should be placed on the 26th of that month, is observed on the 21st.

Thus we have shown that the anniversaries of the ancient Astral Worship were all fixed, and from church history we learn that they were so observed by the Christians until the Council of Nice in the year 325, when the Bishops assembled at that celebrated convocation, desiring to have the festival of Easter celebrated on Sunday, which had been made the Sabbath by the edict of Constantine, in the year 321, ordered that it should be observed on the Sunday of the full moon, which comes on or

next after the Vernal Equinox. Hence, converting it into a movable festival, its allied feasts and fast days were also made movable.

PERSONIFICATIONS OF THE DIVISIONS OF TIME.

In the ancient solar fables the several divisions of time were personified and made to pay homage to the Triune Deity, supposed to be enthroned above the firmament.

The Hours.

The genii of the hours were designated as Elders, and we find them described in the 4th chapter of Revelation as sitting round about the throne upon four and twenty seats, clothed in white raiment, and crowns of gold upon their heads.

The Days.

Each day of the year was appropriately personified, and these genii of the days constitute the saints of the Christian calendar. Of these we will refer to but one. According to the ancient belief that the sun stood still for the space of three days at each of the cardinal points, the 24th of June was made the first of the decreasing days; and dedicating it to St. John the Baptist, he is made to say in reference to his opposite, (the genius of the 25th of December, and first of the increasing days,) "He must increase, but I must decrease." This text, found in John iii. 30, simply means that the days of the one must increase in length, while the days of the other must decrease.

The Months.

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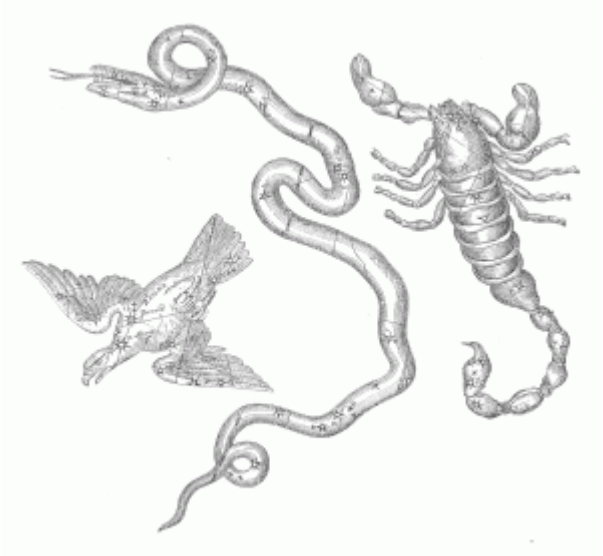
The fable of the twelve labors having been superseded by others, in which the genii of the twelve signs of the Zodiac, corresponding to the months, were designated as angels, and made to minister to God Sol while making his apparent annual revolution; but, when constituted the attendants of the incarnate saviours during their imaginary earth life, they were personified as men and called Disciples. Of these genii of the months we will refer only to the first and the last. The first month, dedicated to the genius known in the mythology as Janus, and from which was derived the name January, was portrayed with two faces, the one of an old man looking mournfully backward over the old year, and the other of a young man looking joyfully forward to the new year. This personification, made the opener of the year, and represented as holding a pair of cross-keys, was called "The carrier of the keys of the kingdom of heaven." Hence, the Popes of Rome, claiming apostolic succession from Peter, the Janus of the Christian twelve, wear cross-keys as the insignia of their office. Sometimes a crosier, or shepherd's crook, is substituted for one of the keys, in reference to his arrogated office of the leader of the sheep! The authority for the assumption that the Popes are Peter's successors is found in Matthew xvi. 18, 19; but its fallacy becomes apparent when we bear in mind that the scriptures are but collections of astronomical allegories, and that the Peter referred to in the text was not a man, but the mythical genius of the month of January.

In reference to the last month, we find that the authors of the ancient solar fables, ever doubting whether God Sol, after inaugurating Winter by his supposed retreat from the earth, would return to revivify nature with his life-giving rays, gave to the genius of the twelfth month the title of the Doubter. In the Christian calendar this personification is known as Thomas, and a more specific dedication of the shortest day of the year having been made to him, the 21st day of December is called St. Thomas day.

The Seasons.

When the cardinal points were in the constellations Leo, Taurus, Aquarius and Scorpio, the astrologers, objecting to the signification of the latter, substituted the constellation in conjunction therewith, which is known as Aquila (Ak-we-la) or Flying Eagle. In the allegorical astronomy of that remote period these genii of the seasons were designated as beasts, and as such we find them referred to in Revelation iv. 7, which reads as follows: "And the first beast was like a lion (Leo), and the second beast like a calf (Taurus, the bull calf), and the third beast had a face as a man, (Aquarius, the waterman) and the fourth beast was like a flying eagle (Aquila)." In the first chapter of Ezekiel, the prophet, the genii of the seasons are referred to in the same manner.



These genii of the seasons, standing, imaginarily, at the four corners of the heavens, were called corner-keepers, and making them witnesses to God Sol in his apparent annual revolution, the founders of the Astral Worship designated them as Archangels, Evangelists, God-Spellers or Gospel-Bearers, and claiming inspiration from them, composed four different histories of the birth and earth-life of the incarnate saviour, to each of which they attached a name, and called these records the Gospel story. In its Chaldean version,

the names of Gabriel, Michael, Raphael and Uriel were given them; but while the first two of these are mentioned in the Christian Gospel story, its authors gave to the Evangelists the names of Matthew, Mark, Luke and John. Thus knowing the true signification of the Disciples and Evangelists, the very pertinent question presents itself: If they are not the genii of the months and the seasons, why are there just twelve of the one and four of the other?

Half Year of Increasing Days.

In the ancient astrolatry, the half year of increasing days, extending from the Winter to the Summer Solstice, was personified by the composite figure representing the constellations of Taurus and Aquarius, which, constituted of the winged body of a bull and the head and beard of a man, was called the Cherubim. This personification we find portrayed upon the Assyrian marbles on exhibition in the British Museum.

Half Year of Decreasing Days.

The half year of decreasing days, extending from the Summer to the Winter Solstice, was personified by the figure, which, representing the constellations of Leo and Aquila, and composed of the winged body and limbs of a lion, with the head of an eagle, was called the Seraphim. These last two personifications constituted the Archangels of the ancient Astral Worship.

Last Quarter of the Year.

The last quarter of the year was personified in the ancient allegories as a decrepit old man, who, stung by a Scorpion (Scorpio), and fatally wounded by an arrow from the quiver of an archer (Saggitarius) dies at the Winter Solstice; and, after lying in the grave for the space of three days, is brought to life again. Such was the personification referred to in the Christian Gospel-story as having been raised from the grave by the

mandate, "Come forth, Lazarus." Thus have we shown that the elders and the saints; the angels, and the Archangels; the Cherubim and Seraphim; and also poor old Lazarus, are but personifications of the several divisions of time.

ZODIACAL SYMBOLS OF SOLAR WORSHIP.

Having shown that the founders of the ancient astrolatry accorded homage to God Sol as Lord of Evil, under the symbol of the serpent, and marked the beginning of his reign, as such, by the constellation "Serpens" placed in conjunction with the Autumnal Equinox; we will now direct attention to the symbols under which he was worshipped as Lord of Good, which, corresponding to the form of the constellation in which occurred the Vernal Equinox, and which was changed to correspond to the form of the succeeding constellation as that Cardinal point passed into it, by that process, known in Astronomy, as the precession of the Equinoxes, its explanation becomes essential to a correct understanding of our subject.

After long observation, aided by the telescope, of which they were undoubtedly the original inventors, the ancient Astrologers discovered that the Sun, in making his apparent annual revolution, did not return to the same point in the heavens, but fell behind that of the preceding year, at the rate of 50¼ seconds of a degree annually. At this rate of precession, which modern, calculation has confirmed, it requires 71 2-3 years for the Cardinal points to pass through one degree on the Ecliptic, and 2150 years through thirty degrees, or one sign of the Zodiac. The knowledge of this process affording an exact chronology, we are enabled, not only to determine the origin of these symbols, but to approximate, very nearly, to the respective dates of their adoption.

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The Sphinx.

From the teachings of Astronomy we learn that the Summer Solstice is now occupying the point between the signs of Taurus and Gemini, from which we know that that Cardinal point has passed through three whole signs since it was between the signs of Leo and Virgo, and we have but to multiply 2,150 by 3 to determine that it has been about 6,450 years ago. Hence, the tourist to the Nile valley, when viewing, near the base of old Cheops, the great Egyptian pyramid, a colossal head and bust of a woman, carved in stone, and learns that it is attached to a body, in the form of a lion in a crouching attitude 146 feet long, hidden beneath the shifting sands of the Libyan desert; if possessed of the knowledge of the precession of the Equinoxes, he will be enabled to solve the riddle of the Sphinx by recognizing in that grotesque monument the mid-summer symbol of solar worship, when the Summer Solstice was between the signs of Leo and Virgo.

The Dragon.

When the Summer Solstice was between the signs of Leo and Virgo, the Winter Solstice was between those of Aquarius and Pisces, and the figure composed of the body of a man with the tail of a fish became the mid-winter symbol of solar worship. Such was the form of this symbol to which the ancient Phoenicians paid homage to the Lord under the name of Dagon.

The Bull.

At the same time the Summer Solstice entered the sign of Leo, the Vernal Equinox entered that of Taurus, and the bull becoming the spring symbol of solar worship—the Lord was designated in the ancient allegories as the bull of God which taketh away the sin of the world; which, shorn of its allegorical sense, signifies the sun in Taurus, or sun of spring, which taketh away the evil of Winter. Such is the purport of

hieroglyphical inscriptions upon papyrus rolls found in Egypt, and engraved upon obelisks erected in the Nile valley, one of which has been recently brought to the City of New York and set up in Central Park. In the East Indies this symbol was represented by the figure of a bull with the solar disk between his horns; and the Egyptians, who were of Hindoo origin, perpetuating it in their "Apis," it was reproduced in the golden calf of the ancient Israelites. The Assyrians represented this symbol by the figure of a winged bull with the face and beard of a man; the Phoenicians, in their "Baal," by the figure of a man with a bull's head and horns; and the small silver bull's heads with golden horns, recently discovered by Dr. Schliemann in the ruins of Mycenae, were jewels worn by the women of that ancient city, when the Vernal Equinox was in the sign of Taurus.

The Ram.

By deducting 2,150 years from 6,450, we determine that about 4,300 years; ago the Vernal Equinox entered the sign of Aries, and the spring symbol of solar worship, changing from the bull to the ram, was represented by ram-headed figures, two of which, found in Egypt, are on exhibition in the British Museum. Then the text which read the bull of God, was changed to the Ram of God which taketh away the sins of the world.

The Lamb.

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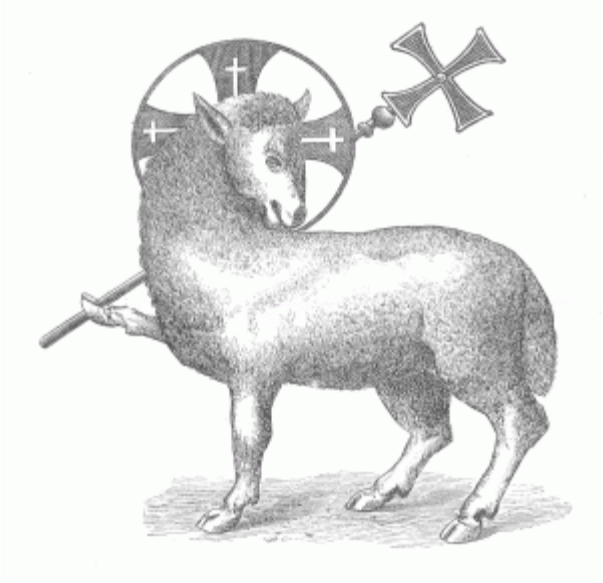

Ultimately attaching a meek and lowly disposition to the imaginary incarnations of the mythical genius of the sun, the symbol of the ram was changed to that of the lamb, and the text in the allegories, which read the Ram of God, was changed to read "The Lamb of God which taketh away the sin of the World," John i, 29. The explanation we have given relative to the Zodiacal Symbols of solar worship makes the assurance doubly sure that the originals of the New Testament were composed when the Vernal Equinox was in the sign of Aries, as will be shown hereafter. Having adopted the symbol of the lamb, it was represented by several forms of what is known as Agnus Dei, or Lamb of God, one of which was in the form of a bleeding lamb with a vase attached into which blood is flowing, which originated in reference to the shedding of blood as a vicarious atonement for sin. But the most comprehensive form of this symbol in its astronomical signification, was represented by the figure of a lamb in a standing attitude, supporting the circle of the Zodiac, divided into quarters to denote the seasons. At each of the cardinal points there was a small cross, and the lamb held in its uplifted fore-foot a larger cross, the long arm of which was made to cut the celestial equator at the angle of 23½ degrees, the true angle of obliquity of the Ecliptic. This symbol is still retained in the Catholic Church.

The Fish.

By deducting 2,150 years from 4,300 we determine that about 2,150 years ago the Vernal Equinox entered the sign of Pisces; and although the original version of the New Testament was founded upon the symbol of the lamb, it is a historical fact that for centuries after the beginning of our era, the Christians paid homage to the Lord under the symbol of the fish; but ultimately going into desuetude, the lamb was retained as the distinguishing symbol of the Christian religion until the year 680, at which date another was substituted, as will be shown under our next heading.

SIGNS OP THE CROSS.

Among the numerous symbols of solar worship, besides those we have already referred to, there are three to which we will direct attention. Two of these were of astronomical signification: the one adopted when the Spring Equinox was in the sign of Taurus and shaped like the letter T, was the model after which the ancient temples were built; and the other, shaped like the letter X, in reference to the angle of 23½ degrees made by the crossing of the Ecliptic and the Celestial equator, is known as St. Andrew's Cross. The third, and most important of all the symbols of solar worship, in its relation to the Christian religion, which, having no astronomical signification, originated in Egypt, in reference to the annual inundation of the river Nile. To mark the height to which the water should rise to secure an abundant harvest, posts were planted upon its banks to which cross beams were attached thus ┼. If the water should rise to the designated height, it was called "the waters of life," or "river of life;" and, ultimately, this form of the cross was adopted as the symbol of the life to come, or

eternal life; and the ancient astrologers had it engraved upon stone, encircled with a hieroglyphical inscription to that effect, one of which was discovered in the ruins of the temple erected at Alexandria, and dedicated to "our Lord and Saviour Serapis."

But, if the water failed to rise to the required height, and the horrors of starvation becoming the inevitable result, it was the custom of the people to nail to these crosses symbolical personifications of the Demon of Famine. To indicate the sterility of the domain over which he reigned, he was represented by the figure of a lean and haggard man, with a crown of thorns upon his head; a reed cut from the river's bank was placed in his hands, as his unreal sceptre; and, considering the inhabitants of Judea as the most slavish and mean-spirited race in their knowledge, they placarded this figure with the inscription: "This is the King of the Jews." Thus, to the ancient Egyptians, this sign of the cross was blessed or accursed as it was represented with, or without, this figure suspended upon it.

When the Roman, or modern, form of Christianity was instituted, the hieroglyphical inscription signifying the life to come or eternal life was substituted by a placard nailed to the cross with the letters I. N. R. I. inscribed upon it, which are the initials of the Latin words conveying the same meaning. But if we would learn how the figure of a man came to be suspended upon this form of the cross, we must refer to Mediaeval History, which teaches that in the year 680, under the Pontificate of Agathon, and during the reign of Constantine Pogonat, at the sixth council of the church, and third at Constantinople, it was ordered in Canon 82 that "Instead of a lamb, the figure of a man nailed to a cross should be the distinguishing symbol of the Christian religion." Now, as this figure is represented by that of a lean and haggard man, with a crown of thorns upon his head, does it not look as if the old Egyptian Demon of Famine was the model after which it was constructed?

FUTURE REWARDS AND PUNISHMENTS.

In the ancient Astrolatry, two different systems of future rewards and punishments were inculcated; the Oriental or East Indian, and the Occidental or Egyptian; the former, ignoring the resurrection of the body, taught but one judgment immediately after death, and the latter inculcated an individual judgment immediately after death, the resurrection of the body, and a general judgment at the end of the world, or conclusion of the 12,000 year cycle.

The Oriental System.

Considering perfect happiness to consist in absolute rest, the Oriental astrologers conceived a state of eternal and unconscious repose, equivalent to soul absorption, to which they gave the name of Nirvana, into which they taught that, by the awards of the gods, the souls of the righteous, or those who had lived what they called "the contemplative life," would be permitted to enter immediately after death. But, for the souls of sinners, they invented a system of expiatory punishments which, known as the Metempsychosis, or transmigration of souls, taught that they would be compelled to successively animate the bodies of beasts, birds, fishes, etc., for a thousand years before being permitted to enter the Nirvana.

The Occidental System.

In concocting the doctrine of the first judgment the Egyptian astrologers, ignoring the Nirvana, inculcated the future sentient existence of the soul; and, while retaining the Metempsychotial expiations of the Oriental system, taught that its rewards, and principal punishments, would be enjoyed or suffered in the under or nether world, the existence of which they had conceived in constructing their system of nature. This

imaginary region, known to the Egyptians as the Amenti, to the Greeks as Hades, and to the Hebrews as Sheol, was divided by an impassable gulf into the two states of happiness and misery which were designated in the Grecian mythology as the Elysium, or Elysian Fields, and the Tartarus. In the lower part of the latter was located the Phlegethon, or lake of fire and brimstone, the smoke from which ascended into an upper apartment.

In this system it was taught that the souls of the two extremes of society, constituted of the righteous and the great sinners, would be consigned immediately after the first judgment, the one to the Elysium, and the other to the Phlegethon, where they were to remain until the second or general judgment; while the souls of less venial sinners, constituting the greater mass of mankind, before being permitted to enter the Elysium would be compelled to suffer the expiatory punishments of the Metempsychosis, or in the upper region, or "smoky row" of the Tartarus. Such was the Egyptian purgatory, and its denizens constituted "the spirits in prison" referred to in I. Peter iii. 19, from which the astrologers claimed to have the power to release, provided their surviving friends paid liberally for their propitiatory offices; and, from this assumption, the clergy of the Catholic church derived the idea of saying masses for the repose of the soul. These doctrines were carried by Pythagoras from Egypt to Greece about 550 years before the beginning of our era; and passing from thence to Rome, the Greek and Latin poets vied with each other in portraying Hades and the joys and terrors of its two states.

The Second or General Judgment.

The Egyptian Astrologers, recognizing the soul as a material entity, and conceiving the idea that in the future life it would require a material organization for its perfect action, taught that at the general judgment it would be re-united to its resurrected body. In conformity to this belief, Job is made to say in chapter xix. 25,

26, "I know that my Redeemer liveth, and that he shall stand at the latter day upon the earth; and though worms destroy this body, yet in my flesh shall I see God." The higher class Egyptians, however, fearing that their existence would continue to be of the same shadowy and intangible character after the second judgment, as they believed it would be in the Amenti, if worms were allowed to destroy their bodies, hoped to preserve them until that time by the process of embalming.

The imaginary events to occur in connection with the second judgment, which, constituting the finale of the plan of redemption, and inculcated in what are known as the doctrines of Second Adventism, were to be inaugurated by an archangel sounding a trumpet summoning the quick and the dead to appear before the bar of the gods to receive their final awards. At the second judgment, designated in the allegories as "the last day," "day of judgment," "great and terrible day of the Lord," etc., it was taught that the tenth and last saviour would make his second advent by descending upon the clouds, and after the final awards, the elect being caught up "to meet the Lord in the air" (I. Thes. iv. 17), the heaven and the earth would be reduced to chaos through the agency of fire. In reference to that grand catastrophe we find it recorded in II. Peter iii. 10, that "the heavens shall pass away with a great noise and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up."

After the organization of a new heaven and a new earth it was taught that upon the latter would descend a beautiful city, with pearly gates and golden streets, called the City of God, the Kingdom of God, the Kingdom of Heaven or New Jerusalem, in which the host of the redeemed would, with their Lord and Saviour, enjoy the Millennium, or thousand years of happiness unalloyed with evil; and such was the Kingdom for the speedy coming of which the votaries of Astral worship were taught to pray in what is known as the Lord's Prayer.

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According to the teachings of the Allegories, there were to be no sun, moon or stars during the Millennium, their authors having arranged it so that the light of those luminaries would not be needed, as we find recorded in Rev. xxi. 23, and xxii. 5: "The city had no need of the sun, neither of the moon to shine in it; for the glory of God did lighten it," and "there shall be no night there; and they need no candle, neither the light of the sun; for the Lord God giveth them light." It must be remembered, when reading the fanciful ideas relative to the City of God, that they were composed by men who, living in a very ignorant age, gave free rein to fervid imaginations.

JEWISH OR ANCIENT CHRISTIANITY.

It is our purpose to present the evidences showing that a system of Astral worship, which we designate as Jewish Christianity, was in existence more than two centuries and a half before the institution of its modern form. In verification of this assertion we must find the initial point of our inquiry in ancient history, which teaches that in the division of the Grecian Empire among his generals, after the death of Alexander the Great, who died 332 years before the beginning of our era, the governorship of Egypt and adjacent provinces was secured by Ptolemy Lagus, or Soter, who, having subsequently suppressed a revolt in Judea, removed from that country a large body of its inhabitants to people the new city of Alexandria, which had been laid out by order of and named after the great Conqueror.

The Egyptian version of the Gospel story, being more appropriate to the Nile Valley than to the region from whence they came, the Greek colonists of Alexandria adopted it, but preferring to pay homage to Serapis, one of the ninth incarnations of God Sol, which they imported from Pontus, a Greek province of Asia Minor, they

erected to his worship that celebrated temple known as the Grand Serapium; and, transferring the culture and refinement of Greece to the new city, it became, under the Ptolemian dynasty, a great seat of learning; the arts and sciences flourished, an immense library was collected, the various forms of Astral worship were represented and schools for the dissemination of the several phases of Grecian philosophy and Oriental Gnosticism were founded.

Such being the environment of the Jewish residents of Alexandria, they soon acquired the vernacular and adopted the religion of the Greeks, who, having ever attached to their incarnate saviours the title signifying the Christ, or the anointed, were known as Christians. Encouraged by the liberal policy of Philadelphus, the second Ptolemy, a body of their learned men, who had been educated in the Greek schools, founded a college for the education of their own people, which institution was ultimately known as the University of Alexandria. Under the auspices of Philadelphus the professors of that institution rendered their Hebrew sacred records into the Greek language, which translation is known as the Septuagint, or Alexandrian version of the Old Testament.

Having acquired from the Egyptian astrologers the arts of healing, thaumaturgy and necromancy, and teaching them in their school, the professors of the Jewish college of Alexandria assumed the title of Essenes, or Therapeutae, the Egyptian and Greek words signifying Doctors, Healers or Wonder Workers. Possessed of the sad and gloomy characteristics of their race, they adopted the "Contemplative Life," or asceticism of the Oriental Gnosticism, from which they derived the name of Ascetics. Founding a church for the propagation of their peculiar tenets, those who were set apart for the ministry assumed the title of Ecclesiastics. Inculcating rigid temperance and self-denial among their people, they were known as Enchratites, Nazarites or Abstainers; and the more devout among them retiring to monasteries, or to the

solitude of caves and other secluded places, were also designated as Monks, Cenobites, Friars, Eremites, Hermits or Solitaries.

The time having arrived, according to the cyclic teachings of Astral worship, for the manifestation of the tenth and last incarnation of God Sol, or, in other words, to, give a new name to the mythical genius of the sun, the professors of the Jewish school of Alexandria is resolved to inaugurate their own form of worship. While retaining the same title under which they had paid homage to Serapis and known as Christians, Essenes or Therapeutae, they substituted for their Christ the name of the Grecian Bacchus, which, composed of the letters IHΣ, signifies Yes, Ies or Jes. In composing their version of the Gospel story, having, like their race, no inventive genius, they appropriated that of Serapis as its basis and laid its scene in the land of their ancestry, but inconsistently retained the sign of the cross and the phraseology connected there with, which, having special reference to the Nile River and its annual inundation, had no application whatever to the sterile land of Judea. Selecting what they conceived to be the best from other versions of the Gospel story, and assuming the title of Eclectics, they designated their system as the Eclectic Philosophy. In proof of the eclectic character of the Gospel and Epistles of ancient Christianity, we refer to the Asceticism inculcated therein, which, derived from the Oriental Gnosticism, we find perpetuated in the scriptures of modern Christianity; we also refer to the miracle of converting water into wine, taken from the Gospel story of Bacchus, and to the statements that the Saviour was the son of a carpenter and was hung between two thieves, copied from the story of Christna, the Eighth, Avatar of the East Indian astrolatry. Thus we see that, although the scene of the Gospel story of ancient Christianity was laid in the land of Judea, its authors having adopted a Greek version of that story as its basis, given a Greek title and name to their Messiah, perpetuated a Greek name for their sect and quoted exclusively from the Septuagint, or Greek version of the Old Testament, the facts show conclusively that it was not Jews of

Judea, but Hellenized Jews of Alexandria, who were the real authors of the ancient Christianity.

THE PROPHECIES.

The clergy having ever claimed that the prophecies are Divine revelations of events yet to occur, and having incessantly agitated society by preaching their speedy fulfillment, we propose to expose the fallacy of their teachings by showing that these scriptures are not the records of future events, Divinely reavealed, but that they originated with the founders of Astral worship, who predicated them upon predetermined events of their own concoction, relative to the general judgment, and setting up of the kingdom of heaven, which were to occur as the finale of the plan of redemption and from which were derived the doctrines of second adventism; and, in determining the exact time when then were to occur, we have but to prove that it was coincident with the conclusion of the last half of the grand cycle of 12,000 years, which, as we have shown, was dedicated to man as the duration of his race on earth.

As evidence that the founders of the Jewish or ancient Christianity believed, like the votaries of other forms of Astral worship, that the prophecies were soon to be fulfilled, we find that the New Testament, of the original version of which they were the authors, is replete with such texts as "Repent, for the Kingdom of Heaven is at hand," Matt. iv. 17; "There be some standing here which shall not taste death till they see the Son of Man coming in His kingdom," Matt. xxi. 28; "The time is fulfilled, and the Kingdom of God is at hand," Mark i. 15. That the original version of the New Testament was composed when the Vernal Equinox was in the sign of Aries we are assured by reason of the fact that it inculcates homage to the Lord under the symbol of the Lamb; and that it was during the last, or 30th degree of that sign, can readily be proven by appealing to history and to astronomy, the former of which teaches that the Jews were removed from Judea to Alexandria twenty-five years before the accession

to the throne of Philadelphus, the Second Ptolemy, to whom we have referred in our preceding article, and who, after reigning thirty-nine years, died 246 years before the beginning of our era. By reference to the Celestial atlas we will find that the Vernal Equinox will pass out of the sign of Pisces into that of Aquarius, or in the year 1900, and we have but to deduct that period of time from 2150, the number of years required for the cardinal points to pass through one whole sign, to determine that the Spring Equinox passed out of the sign of Aries into that of Pisces 250 years before the beginning of our era, or about 2,100 years ago. Now, from the projections of the astrological science, we are assured that the last half of the grand cycle of 12,000 years, which was allotted to man as the duration of his race on earth, was made to begin at a time corresponding to the Autumnal Equinox, when that cardinal point was passing out of the sign of Virgo, and that of necessity it had to come to an end at a time corresponding to the Vernal Equinox, when that cardinal point was passing out of the sign of Aries; from which we know why, at the last judgment, the office of trumpeter was assigned to the Archangel Gabriel, the genius of Spring, and why it was a ram's horn with which he was to "toot the crack o' doom."

When the time arrived for the fulfillment of the prophecies we can well imagine that, fearing the wrath of the Lamb, there were weeping, wailing and gnashing of teeth among the terror-stricken sinners, while those who believed they had made their calling and election sure were looking with feverish expectancy for the second advent of their Lord and Saviour; and, doubtless, clothed with their ascension robes, they watched and waited, with ears alert, to hear the sound of Gabriel's trumpet, summoning the quick, and the dead to the general judgment. But not a blast from the archangel's ram's horn was heard reverberating along the skies, no Lord appeared descending upon the clouds to meet the elect in the air, and, in the last act of the fearful drama of "judgment day," the curtain refused to be rung down upon a burning world.

With the non-fulfillment of the prophecies, the more enlightened elements of society began to scoff at the priests, who were temporarily demoralized, but true to their deceptive instincts, soon rallying with the plea of a mistake having been made in the calculations based upon the prophecies, they undoubtedly concocted scripture to meet that very emergency, for, to the taunts of the scoffers who, in reference to the second advent of the Lord, enquired "Where is the sign of His coming? for, since the fathers fell asleep, all things continue as they were from the beginning of creation," they answered that "The Lord is not slack concerning His promise," but "as a thief in the night" he would soon come and all things be fulfilled. See II. Peter, chapter iii.

Following up the history of this interesting subject, we find that the founders of modern Christianity, to which we will refer in our next article, in composing their version of the New Testament from that of the Jewish, or ancient Christians, made no change in its verbiage relative to the prophecies; but when Constantine I., Emperor of Rome, became the patron of the church, her hierarchy, tired of figuring upon them, secured a long respite from that troublesome subject by claiming to have made other calculations, which put off the time of fulfillment to the year 1000; and from history we learn when the time arrived the whole of Christendom was fearfully agitated upon the subject: Since then every generation has been vexed with the fallacies of second adventism; and the facts of the case justify the charge that the clergy, by teaching that the prophecies refer to events yet to occur, are perpetuating a most stupendous fraud upon Christendom, and an earnest and efficient protest should be inaugurated against the further agitation of the monstrous delusion of second adventism, which is frightening thousands of weak-minded people into insanity and causing a vast amount of social distress.

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ROMAN OR MODERN CHRISTIANITY.

Having presented the evidences that the Jewish, or ancient Christianity, originated at the University of Alexandria, under Greek rule, we now propose to show that its modern form emanated from the same source, under Roman rule; but, before entering upon this investigation, it is important to become conversant with the sentiments manifested towards religion by the cultured element of Roman society in that enlightened era, which, designated as the golden age of literature, was adorned by such distinguished orators, philosophers, historians, poets and naturalists as Cicero, Tacitus, Pliny, Horace and Virgil. In reference to this subject, Gibbon, in his history of The Decline and Fall of the Roman Empire, vol. I., chapter 2, says: "The various modes of worship which prevailed in the Roman world were all considered by the people as equally true, by the philosophers as equally false and by the magistrate as equally useful. Both the interests of the priests and the credulity of the people were sufficiently respected. In their writings and conversation the philosophers of antiquity asserted the independent dignity of reason, but they resigned their actions to the commands of law and custom. Viewing with a smile of pity and indulgence the various errors of the vulgar, they diligently practiced the ceremonies of their fathers, devoutly frequented the temples of the gods, and sometimes condescending to act a part on the theatre of superstition, they concealed the sentiments of an atheist under the sacerdotal robe. Reasoners of such a temper were scarcely inclined to wrangle about their respective modes of faith or of worship. It was indifferent to them what shape the folly of the multitude might choose to assume, and they approached with the same inward contempt and the same external reverence to the altars of the Lybian, the Olympian or the Capitoline Jupiter." Upon the same subject Mosheim, in his church history, Book I., chapter 1, says that "The wiser part of mankind, about the time of Christ's birth, looked upon the whole system of religion as a just object of contempt and ridicule."

In determining why such adverse sentiments were entertained towards religion by "the wiser part of mankind," about the time referred to in the foregoing quotations, it will be found to have been owing to the extensive spread of the Esoteric philosophy, which taught, as previously stated, that the gods were mythical and the scriptures allegorical. While attainable only through initiation, it was necessarily confined to a limited number, but, ultimately getting beyond the control of the priests and vast numbers acquiring the knowledge of its secrets without initiation, it became evident that it was but a question of time when there would be no respectable element left to sustain religion. At this juncture our attention is directed to the University of Alexandria, which, at that time, was in a flourishing condition. Having ceased to be an exclusively Jewish school, students from all parts of the Roman Empire, without regard to nationality, were attending it, and its professors were drawn from the ranks of both Jewish and Gentile scholars. Realizing the hopelessness of reviving the ancient faith among the enlightened clement of society, and the impossibility of proselyting them to a new form of superstition, these professors resolved to institute a system of worship exclusively for the Jews and the lower and neglected classes of Gentiles, including the slaves and criminals. To that end they rewrote the scriptures of the Jewish or ancient Christianity, which had been preserved among the secret archives of the University. Retaining their teachings relative to the finale of the plan of redemption, and its monasticism; also the land of Judea as the scene of its version of the Gospel story, and the name of its saviour, to which they added the Latin terminal "us," thus making it Iesus or Jesus, they perpetuated the Greek name of Bacchus—the same that was ultimately perverted into the monogram which, consisting of the Roman letters I. H. S., is found in all Catholic churches, and in some Protestant ones, is falsely supposed to stand for Jesus Hominum Salvator, or Jesus, Saviour of Men. Conforming their version of the Gospel story to the lowly condition of its expected votaries, they attached to the saviour the characteristics of poverty, and made it teach that he was born in a manger, that his disciples were but humble

fishermen and that the poor would be the only elect in the kingdom of heaven. Dropping the name of Essenes or Therapeutae, and retaining that of Christian, they incorporated a thread of real history corresponding to the reign of Augustus, and arbitrarily made the Christian era begin at that time. Having thus completed their scheme, they prudently destroyed the original from which they compiled their scriptures, and sending out missionaries to all parts of the Empire commissioned them to preach salvation only to the Gentile rabblement and to the Jews.

That the sacred records of the ancient Essenes or Therapeutae constituted the basis of the scriptures of modern Christianity we have the authority of Eusebius, the church historian of the fourth century, from whom we learn nearly all that is reliable of its history during the first three centuries. In his Ecclesiastical History, Book II. chapter 17, he makes the important admission that "Those ancient Therapeutae were Christians, and that their writtings are our Gospels and Epistles." As further evidence that modern Christianity is but a survival of the Eclectic philosophy of the ancient Therapeutae, we have another important admission by the same historian, who, in quoting from an apology addressed to the Roman Emperor, Marcus Antoninus, in the year 171, by Melito, Bishop of Sardis, in Lydia, a province of Asia Minor, makes that apologist say, in reference to certain grievances to which the Christians were subjected, that "the philosophy which we profess truly flourished aforetime among the barbarous nations; but having blossomed again in the great reign of thy ancestor, Augustus, it proved to be, above all things, ominous of good fortune to thy kingdom." Thus we have indubitable evidence that it was the Eclectic philosophy of the Jewish, or ancient Christianity, which "blossomed again," in its modern form, during the reign of Augustus.

From the testimony of Philo, as referred to by Eusebius, and from the writings of Josephus, the Jewish historian, we learn that, at the beginning of our era, the

descendants of the ancient Essenes were still observing the practices and customs of monasticism. But as Josephus refers to them only as descendants of the ancient Essenes, and makes no mention of Christ or Christians—except in one paragraph which has been conceded by the best authorities to be an interpolation it is evident that, at that time, they had no connection with the University of Alexandria, and nothing whatever to do with the institution of modern Christianity. It is also apparent that the Jews of Judea had no hand in its organization, for, if they had instituted it, they would not have attached to the Messiah the Greek title signifying the Christ, but, writing their version of the Gospel story in their own dialect, would have used the Hebrew word signifying the Shiloh (see Gen. xlix. 10); and furthermore, having conceived the idea that he would manifest himself as a great temporal prince, who would re-establish the throne of David, and deliver them from the oppression of foreign rulers, they would not have attached to him the humble characteristics of the Christ of the new Testament. Again, if they had been the authors of modern Christianity, it would have been a most surprising inconsistency for them to turn right about and reject its conceptions of a savior, especially when that rejection resulted in the dire persecutions to which their race has ever been subjected by the Christians. But the Gentile riffraff, attracted by the gracious promises of enjoying in the world to come the felicities denied them in this, eagerly attached themselves to the new sect, which rapidly increased in numbers, and its votaries, glorying in the opprobrious epithet of Ebionites, or needy ones, made themselves so obnoxious by their aggression and turbulent dispositions that, barely tolerated by the Government and condemned by the cultured adherents to the established religion, many of them, courting the crown of martyrdom, suffered death at the hands of the civil authorities; and thus was engendered that spirit of hatred against their fancied oppressors which only awaited the opportunity to manifest itself in deeds of rapine and-bloodshed.

The fanacticism which prevailed among the earlier Christians was the direct result of their dense ignorance, and to this sole cause we may ascribe all the trouble which the Roman Government had with them, and to become convinced of this fact we have but to study church history. In reference to this subject Mosheim, in his Ecclesiastical History; Vol. 4, part 2, chap. 1, says: "It is certain that the greatest part both of the bishops and presbyters were men entirely destitute of learning and education. Besides, that savage and illiterate party, who looked upon all sorts of erudition, particularly that of a philosophical kind, as pernicious, and even destructive of true piety and religion, increased both in number and authority. The ascetics, monks and hermits augmented the strength of this barbarous faction, and not only the women, but also all who took solemn looks, sordid garments, and a love of solitude, for real piety, were vehemently prepossessed in their favor." In almost any history of England we will find it recorded that, even in the ninth century, King Alfred lamented that there was at that time not a priest in his dominions who understood Latin; and even for some centuries after the bishops and prelates of the whole Christian community were marksmen, i. e., they supplied by the sign of the cross the inability to write their own names. If the bishops and priests were so supremely ignorant what can be said in reference to the literary attainments of the laity?

The Christians were alternately persecuted and tolerated by the Roman Emperors until the first quarter of the fourth century, when certain events occurred through which the Church of Rome became the recipient of Imperial Patronage. Constantine I., called the Great, having made himself sole Emperor by destroying all other claimants to the throne, applied to Sopater, one of the priests of the established religion, for absolution, and was informed that his crimes were of such an atrocious character that there was no absolution for him. Believing that the Phlegethon, or lake of fire and brimstone, awaited him in the future life, unless he could obtain absolution, he became very much distressed when one of his courtiers, learning the cause and

referring him to the Church of Rome, he at once applied to her Bishop, Silvester, who, readily granting the desired absolution, he added another victim to his butcher bill by ordering the death of the honest priest who had refused to grant him absolution. The Christian sect having become a powerful and dangerous faction, Constantine conceived the idea of strengthening his usurped and precarious position by attaching it to his interest, and to that end he professed himself a convert to its tenets, and, taking the Church of Rome under his especial patronage, elevated her Bishop to the rank of a prince of the Empire and gave him one of his palaces for a residence.

The Christian hierarchy, knowing that it would be a potent means of confirming the faith of the laity in the Gospel story as a literal history to have a tomb of the Saviour to which pilgrimages could be made, and appealing to Constantine to provide one, he sent his mother, Helena, to Judea to find the place and, of course, discovering what she went to look for, he had erected, under her supervision, over the designated spot, that splendid edifice which, known as the church of the Holy Sepulchre, remains to this day. Helena, good at finding lost things, also claimed to have discovered the veritable cross upon which the Saviour had been crucified; and her son, worthy of such a mother, claimed, as recorded by Eusebius, that he had seen with his own eyes the trophy of a cross of light in the heavens, above the sun, bearing the inscription: "In Hoc Signo Vinces," signifying "Under this sign, conquer." Those were times of remarkable and supernatural occurrences.

At the time Constantine became the patron of Christianity the bishops and presbyters of the several churches, seemingly ignorant of the teachings of the Esoteric philosophy relative to the origin of the Trinity, were divided into two factions in discussing the relation between the Father and the Son. One party, headed by Athanasius, a presbyter of Alexandria, and afterwards bishop of that see, advocated the ancient belief that the three persons in the godhead of Father, Son and Holy Ghost

is but one God, that Christ is consubstantial or co-eternal with the Father, and that he became man to perform his mission of redemption. Such, in brief, is what is known as the Athanasian or Trinitarian Creed. The other party, headed, by Arius, another presbyter of Alexandria, advocated the belief in one God alone and that Christ, having no existence until begotten of the Father, is not consubstantial or co-eternal with him. Such, in substance, constitutes what is known to the Trinitarian or Orthodox Christians as the Arian or Unitarian heresy. Could stronger evidence be adduced that this controversy was the result of ignorantly making a distinction where there is no difference, for whether Trinitarian or Unitarian the mythical genius of the sun is the God to whom they all paid supreme adoration, although the Christians of to-day would deny it most emphatically.

The faction, advocating the Trinitarian creed having converted the Emperor to their belief, and influencing him to enforce it as a fundamental doctrine of the Christian theology, he, in the year 325, summoned, at his own expense, a general council of bishops and priests to meet at Nice, in Bithynia, a province of Asia Minor. When they had assembled he appeared among them, clad in gorgeous attire, with a jewel-studded diadem upon his royal brow, and, seated upon a gilded chair, presided over their deliberations. A minority of them, holding "most contumaciously" to the Arian heresy, and refusing to change their views at the bidding of the Emperor, he banished them from their respective bishoprics, while the majority adopted the Trinitarian creed, and appealing to Constantine to suppress the writings of Arius he issued an edict for that purpose, which we present as follows: "Moreover we thought that if there can be found extant any work or book compiled by Arius the same should be burned to ashes, so that not only his damnable doctrine may thereby be wholly rooted out, but also that no relic thereof may remain unto posterity. This we also straightway command and charge, that if any man be found to hide or conceal any book made by Arius, and not immediately bring forth such book, and deliver it up to

be burned, that the said offender for so doing shall die the death. For as soon as he is taken our pleasure is that his head shall be stricken off from his shoulders." Rather a blood-thirsty, edict to be issued by the "puissant, the mighty and noble Emperor," and a very inconsistent one, considering that he soon afterwards readopted the Unitarian faith and restored the banished bishops to their respective sees; but, regardless of his action, the Church of Rome sustained the Trinitarian creed and enforced the dogma of the supreme divinity of Christ.

Thus we see that the history of Christianity, in the first half of the fourth century, cannot be written without incorporating considerable from the life of Constantine, whose ensanguined record before his pretended conversion marks him as the most brutal tyrant that ever disgraced the imperial purple; but the appalling crimes he perpetrated afterwards, among which were the scalding his inoffending wife to death in a bath of boiling water, and the murdering, without cause, of six members of his family, one of which was his own son, justify what a learned writer said of him, that "The most unfortunate event that ever befell the human race was the adoption of Christianity by the crimson-handed cut-throat in the possession of unlimited power," and yet Constantine was canonized by the Eastern church.

During the first three centuries, when Christianity was but a weak sect, her bishops addressed numerous apologies to the Roman Emperors, in which they claimed tolerance from the government on the ground that their form of worship was virtually the same as the established religion. But after Constantine's pretended conversion its hierarchy began to labor for the recognition of Christianity as the state religion, and to give to their demand some show of consistency they insisted that their scriptures were really historical, and that there was no resemblance whatever between the two forms of worship; while theirs was of Divine authenticity the Pagans was purely a human institution.

For centuries after the convocation of the council of Nice the peace and harmony of the several churches were disturbed by the rancorous discussion of the same old questions of Trintarianism and Unitarianism, the Western church adhering to the former while a majority of the Eastern congregations maintained their faith in the latter; but ultimately the Trinitarian party, gaining the ascendency, and persecuting the adherents of the Unitarian faith, the greater part of them retired into northern Arabia where they founded numerous monasteries; and from history we learn that, having impressed their Unitarian faith upon the populace of that country, it was ultimately incorporated into the Koran, the sacred book of Mohammedanism; and, while becoming votaries of that form of worship, still retained the belief that Christ was but one of the prophets.

The cultured adherents to the established form of worship, becoming alarmed at the growing power and influence of the Christians and at the prospect of such an ignorant and vicious rabble obtaining control of the government, regardless of their pledge to keep the Gnosis secret, publicly announced that the Gods were mythical and the scriptures allegorical, and engaged in a heated controversy with the Christians upon the subjects. The character of their discussions is well, although supposititiously, expressed by Gerald Massey, in his work entitled, "The Historical Jesus and the Mythical Christ;" page 179, American edition, where he makes the Gnostics say to the Christians, "You poor ignorant idiots; you have mistaken the mysteries of old for modern history, and accepted literally all that was only meant mystically." To which the Christians responded, "You spawn of Satan, you are making the mystery by converting our accomplished facts into your miserable fables; you are dissipating and dispersing into thin air our only bit of solid foothold in the world, stained with the red drops of Calvary. You are giving a satanic interpretation of the word of revelation and falsifying the oracles of God. You are converting the solid facts of our history into

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your newfangled allegories;" to which the Gnostics replied, "Nay, it is you who have taken the allegories of Mythology for historical facts."

But it was impossible to stem the rising tide; the lessons which the priesthood had taught the ignorant masses had been too well learned. They were sure that their scriptures were historical; that Jesus Christ was truly the incarnate saviour who had died and rose again for the salvation of the elect, and that being the elect it would be pre-eminently just and proper that the old Pagan form of worship should be abrogated and theirs recognized as the state religion. Thus the conflict raged until the year 381, when, under the reign of the Emperor Theodosius the Great, this demand having been formally made, and the Senate, fearing the tumult a refusal would excite, with a show of fair dealing ordered the presentation, before that body, of the respective merits of the two forms of worship. In that memorable discussion, which lasted a whole week, Symmachus, a senator, advocated the old system, and Ambrose, Bishop of Milan, the new, which resulting, as a foregone conclusion, in the triumph of Christianity, a decree to that effect was promulgated.

Then the long deferred opportunity having arrived, the vengeful bishops, hounding on a no less vengeful laity, ruthlessly murdered the priests of the old religion, and, appropriating its emoluments to their own use, they seized upon its temples, and demolishing some, converted others into churches. With iconoclastic hands they destroyed some of the statues representing the ancient divinities, or after mutilation exposed others in public places to the derision of the populace. Subjecting the adherents to the older form of worship, whom they designated as infidels, to the most diabolical indignities and persecutions, they destroyed their works of art, burned their libraries, suppressed their schools of learning, and either killed or exiled their professors. Among the atrocious acts perpetrated by these fiends in human shape none was more barbarous than the one committed in Alexandria, in the year 415, when

Hypatia, the beautiful and accomplished daughter of Theon, who had succeeded her father as professor of mathematics and philosophy in the Alexandrian University, while on her way to deliver a lecture, was, by order of Bishop Cyril, dragged from her chariot and murdered in a most revolting manner.

One of the successors of Theodosius justified himself in decreeing the spoliation of the old religion upon the grounds that "It was unbecoming a Christian government to supply the infidels with the means of persevering in their errors." Another one of the Emperors, more zealous than his predecessors, decreed the death penalty against all persons discovered practicing any of the rites and ceremonies of the old religion. Thus the onslaught of Christian savagery obliterated the civilization of Greece and Rome, and inaugurated that long reign of intellectual night known as the Dark Ages, which, materially aiding in effecting the decline and fall of the Roman Empire, made it possible to erect upon its ruins that Italian Oligarchy, which, since then, has ruled the greater part of Christendom.

The dogmatic element of the ancient astrolatry, as incorporated into the Christian creed, underwent no material change until the inauguration of the dark ages, when the bishops of the several churches, in the delirium of metaphysical speculation, concocted the previously unheard of doctrine of pre-existence of spirit, in conformity to which God was declared to be purely a spiritual deity, who, existing before matter, created the universe of nothing. Being the sole custodians of the scriptures; and changing the six periods of a thousand years each to the six days of creation, they altered Gen. i, 1, to read, "In the beginning God created the heaven and the earth," which in the original read: "In the beginning, when the Gods (Elohim or Alehim) had made (shaped or formed) this heaven and this earth." These radical changes necessitating others, they made two distinct and independent beings of the principles of Good and Evil personified in the God Sol; the former they embodied in Jesus the

Christ and the latter in the Christian Devil, thus supplanting old Pluto; the presiding genius of the under world.

Rejecting the ancient doctrines relative to the soul, and teaching that, having proceeded from a purely spiritual deity, it would exist eternally as an independent spiritual entity, they substituted for the ancient system of limited rewards and punishments the one inculcating their endless duration. These changes in the creed, which were confirmed at the general council of Constantinople, in the year 553, necessitating further alterations of the scriptures, the righteous were promised "eternal life" in the Paradise of God beyond the stars; and, While consigning great sinners to "everlasting punishment" in the Tartarian fires of the under world, the less venial were to expiate their crimes in the same old Purgatory. Thus, having invented an endless heaven and an endless hell for purely spiritual souls, and neglecting to expunge the doctrines of the resurrection of the body, the setting up of the kingdom of heaven upon a reorganized earth and other materialistic teachings of the ancient religion, they made of the creed and scriptures such a conglomeration of "things new and old" that, without the Astrological key, it would be impossible to determine what they originally taught.

At the Reformation in the 16th century Luther and his coadjutors, while projecting into the Protestant creed all the cardinal tenets of Catholicism, excepting that of Purgatory, made no change in the verbiage of the scriptures. Thus retaining the awful doctrine of endless hell, the reformers constructed a creed which they intended for the government of Protestants for all time; but, doing what had never been done before in the history of the world, they gave the scriptures to the laity, and, whether or not they secured the right of private judgment or individual interpretation, it has been taken all the same; and thus opening the door to investigation, it must ultimately result not only

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in the abrogation of hell, but in the relegation to the limbo of oblivion of the whole dogmatic element of religion.

As a fitting conclusion to this article, we again direct the attention of our readers to the subject of the primary source of religious dogmas. Prior to the establishment of Christianity as the state religion of the Roman Empire, the philosophers who wrote against it invariably made the charge that its theology was derived from the ancient Paganism. After its establishment as the state religion of the Empire, the hierarchy of the church, knowing that this charge was unanswerable, instigated the Emperor Theodosius I. to promulgate an edict decreeing the destruction of all books antagonistic to Christianity. This edict, directed more particularly against the writings of Celsus, was carried out so effectually that we know nothing of what he wrote, only as quoted by Origen, the distinguished church father of the third century, who attempted to answer in eight books what Celsus had written in one, entitled "The True Discourse." In one of his quotations from Celsus' work he makes that philosopher say "that the Christian religion contains nothing but what Christians held in common with heathens, nothing that was new or truly great." See Bellamy's translation, chapter 4. During the earlier centuries the Christians were divided into numerous sects, entertaining very divergent views, and each faction, holding all others to be heretical, charged them with having derived their doctrines from the Pagan religion. Upon this subject we find that Epiphanius, a celebrated church father of the 4th century, freely admits that all that differed from his own were derived from the heathen mythology. Such was the position of all orthodox writers during the Middle Ages, and since the Reformation the Protestant clergy have uniformly made the same charge against the Catholic; a few quotations from their writings we present for the edification of our readers.

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Jean Daille, a French Protestant minister of the 17th century, in his treatise entitled La Religion Catholique Romaine Institute par Nama Pompile, demonstrates that "the Papists took their idolatrous worship of images, as well as all their ceremonies, from the old heathen religion." Bishop Stillingfleet of the English church and a writer of considerable eminence in the 17th century, said, in reference to the complaisant spirit of the early church towards the Pagans, that "it was attended by very bad consequences, since Christianity became at last, by that means, nothing else but reformed Paganism, as to its divine worship." See Stillingfleet's defense of the charge of idolatry against the Romanists, vol. 5, page 459. M. Turrentin, of Geneva, Switzerland, a learned Protestant writer of the 17th century, in one of his orations describing the state of Christianity in the 4th century, says "that it was not so much the Empire that was brought over to the faith, as the faith that was brought over to the Empire; not the Pagans who were converted to Christianity, but the Christians who were converted to Paganism." Thus, having shown that the Catholics derived all their cardinal tenets from the Pagan mythology, the Protestants must surely have obtained theirs from the Catholics, for they teach all of them except that of Purgatory.

FREEMASONRY AND DRUIDISM.

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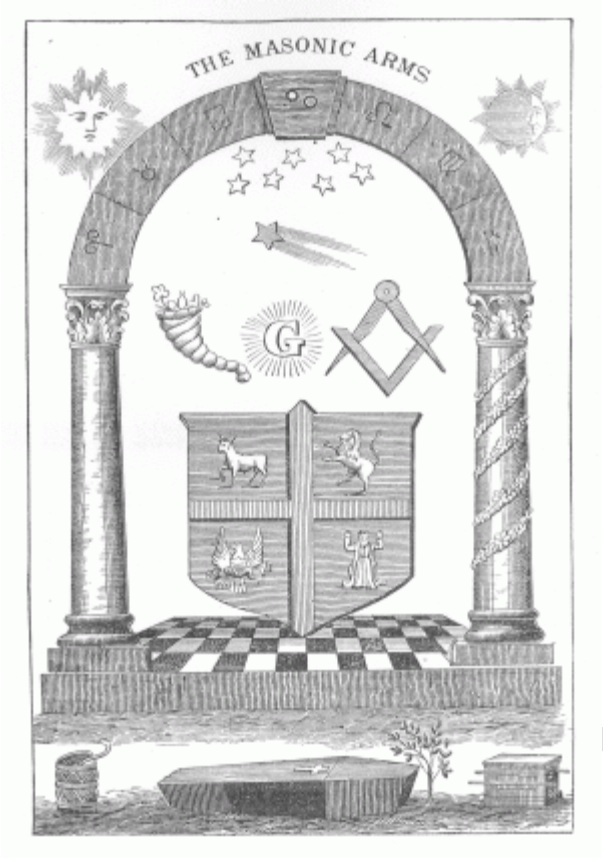

The rites and ceremonies of Astral worship, under the name of Druidism, were primarily observed in consecrated groves by all peoples; which custom was retained by the Scandinavian and Germanic races, and by the inhabitants of Gaul and the British Islands; while the East Indians, Assyrians, Egyptians, Grecians, Romans, and other adjacent nations, ultimately observed their religious services in temples; and we propose to show that the modern societies of Freemasonry, and ancient order of Druids, are but perpetuations of the grove and temple forms of the ancient astrolatry. In determining the fact that Freemasonry finds its prototype in the temple worship of ancient Egypt, we have but to study the Masonic arms, as illustrated in Fellows' chart, in which are pictured, as its objects of adoration, the sun and moon, the seven stars, known as Pleiades in the sign of Taurus; the blazing star Sirius, or Dog-star, worshipped by the Egyptians under the name of Anubis, and whose rising forewarned those people of the rising of the Nile River; the seven signs of the Zodiac from Aries to Libra, inclusive, through which the

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sun was supposed to pass in making his apparent annual revolution, and which constitutes the Royal arch from which was derived the name of one of its higher degrees; and its armorial bearings, consisting of pictures of the Lion, the Bull, the Waterman, and the Flying Eagle, which representing the signs at the cardinal points, constituted the genii of the seasons. Besides these, we have the checkered flooring or mosaic work, representing the earth and its variegated face, which was introduced when temple worship succeeded its grove form; the two columns representing the imaginary pillars of heaven resting upon the earth at Equinoctial points, and supporting the Royal arch; also the letter "G" standing for Geometry, the knowledge of which was of great importance to the natives of Egypt in establishing the boundaries of their lands removed by the inundations of the Nile, the square and compass, being the instruments through which the old landmarks were restored, and which ultimately became the symbols of justice. The cornucopia, or horn of plenty, denoted the sun in the sign of Capricorn, and indicated the season when the harvest was gathered and provisions laid up for Winter use; the cenotaph or mock coffin with the sign of the cross upon its lid, referred to the sun's crossing of the celestial equator at the Autumnal Equinox, and to the figurative death of the genius of that luminary in the lower hemisphere; whose resurrection at the Vernal Equinox is typified by the sprig of acacia sprouting near the head of the coffin. The serpent, issuing from the small vessel to the left, represented the symbol of the Lord of Evil under whose dominion was placed the seasons of Autumn and Winter; and the figure of a box at the right hand, represented the sacred ark in which, anciently, the symbols of solar worship were deposited; but which is now used by the masons as a receptacle for their papers.

After, the promulgation, in the fifth century, of the edict by one of the Emperors of Rome, decreeing the death penalty against all persons discovered practicing any of the rites and ceremonies of the ancient religion, a body of its cultured adherents,

determining to observe them secretly, banded themselves together into a society for that purpose. With the view to masking their real object, they took advantage of the fact that the square and compass, the plumbline, etc., were symbols of speculative masonry in the temple form of Astral worship, they publicly claimed to be only a trades-union for the prosecution of the arts of architecture and operative masonry; but, among themselves, were known as Free and Accepted Masons or Freemasons. In imitation of the ancient mysteries they instituted lower and higher degrees; in the former they taught the Exoteric creed, and in the latter the Esoteric philosophy, as explained in our introduction. Inculcating supreme adoration to the solar divinity the candidates for initiation were made to personate that mythical being and subjected to the ceremonies representing his figurative death and resurrection, were required to take fearful oaths not to reveal the secrets of the order. To enable them to recognize each other, and to render aid to a brother in emergencies, they adopted a system of grips, signs and calls; and to guard against the intrusion of their Christian enemies they stationed watchmen outside of their lodges to give timely warning of their approach. Thus was instituted the original Grand Lodge of Freemasonry, from which charters were issued for the organization of subordinate lodges in all the principal cities throughout the Roman Empire.

Becoming cognizant of the true object of Freemasonry, the Hierarchy of the Church of Rome resolved to suppress the order, and to that end maintained such a strict espionage upon its members that, no longer able to assemble in their lodges, they determined to defend themselves by an appeal to arms, and gathering together in strongholds, for a long time successfully resisted the armies of the church; but ultimately, being almost exterminated, the residue disbanded, and we hear no more of Freemasonry, as a secret order, until the conclusion of the Dark Ages, when the Reformation, making it possible, a form of the order, recognizing Christianity, was revived among the Protestants; but the Church of Rome, true to her traditions, has

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never ceased to hurl anathemas against it and all other secret societies outside of her own body. Thus, having made it apparent that Freemasonry, as primarily instituted, was but a perpetuation of the temple form of Astral worship, we can readily see that, while some of its symbols are as old as the ancient Egyptian religion, it did not, as a secret order, take its rise until Christian persecution made it necessary. Hence it cannot justly lay claim to a greater antiquity than the fifth century of the Christian era.

According to Masonic annals a Grand Lodge was organized at York, England, early in the tenth century, but, like the lodges of Southern Europe, was suppressed by the Church of Rome. In 1717 a Grand Lodge was organized at London, England, and soon afterwards the old Grand Lodge at York was revived, and its members took the name of Free and Accepted Ancient York Masons, from which emanated the charter of the Grand Lodge in the United States, which was organized in Boston in 1733. In 1813 the rivalry between the Grand Lodges of York and London was compromised, and the supremacy of the former was conceded.

From church history we learn that in the year 596 of our era Pope Gregory I. dispatched Augustin, and forty other monks of the order of St. Andrew, from Rome to Britain, to convert the natives to Christianity; but, while the Anglo-Saxons embraced the new faith, the Britons rejected it, and, being persecuted by the Christians, retired to the fastnesses of the country known as Wales, where, for a long period, they maintained the observance of the Druidical form of worship; and although that country has long since become Christianized, the society of the Ancient Order of Druids has existed with an uninterrupted succession at Pout-y-prid, where the Arch-Druid resides, and from, whence emanated the charter of the Grand Lodge of the order in this country. In reference to the Druidism on the continent, history records the fact that when one of the reigning kings became a convert to Christianity the whole of his subjects were baptized into the Church of Rome by Imperial decree.

THE SABBATH.

In determining the origin of the seventh day Sabbath, we must of necessity refer to that source of all religious ordinances, the ancient astrolatry, the founders of which, having taught that God Sol was engaged in the reorganization of Chaos during the first six periods of the twelve thousand year cycle, corresponding to the months of Spring and Summer, they conceived the idea that he ceased to exert his energies, or rested from his labors on the seventh period, corresponding to the first of the Autumn months. Hence, deriving the suggestion from the apparent septenary rest in nature, they taught that God ordained the seventh day of the week as the Sabbath or rest day for man.

In conformity to this ordinance the founders of ancient Judaism enforced the observance of the seventh day Sabbath in the fourth commandment of the Decalogue, which, found in Gen. xx. 8-11,[1] reads as follows, viz: "Remember the Sabbath day to keep it holy. Six days shalt thou labor and do all thy work; but the seventh day is the Sabbath of the Lord thy God; in it thou shalt not do any work, thou, nor thy son, nor thy daughter, thy man servant, nor thy maid servant, nor thy cattle, nor thy stranger that is within thy gates; for in six days the Lord made heaven and earth, the sea and all that in them is, and rested the seventh day; wherefore the Lord blessed the Sabbath day and hallowed it." Thus was the seventh day of the week made the Sabbath of the Old Testament; but the authors of the Jewish or ancient Christianity, looking for the immediate fulfillment of the prophecies relative to the second judgment, ignored its observance, as may be seen by reference to Mark ii. 23, 27; John v. 2-18; Romans xiv. 5; and Col. ii. 16; and the founders of modern Christianity, perpetuating the belief in

the speedy fulfillment of those prophecies, made no change relative to the Sabbath in their version of the New Testament.

After Constantine's pretended conversion to Christianity, and the time for the fulfillment of the prophecies had been put off to the year 10000, as previously stated, the hierarchy of the church appealed to the Emperor to give them a Sabbath, and although they knew that the seventh day of the week was the Sabbath of the Old Testament, and that Sunday was the first of the six working days, according to the fourth commandment, their hatred to the Jews for refusing to accept their Christ as the Saviour induced them to have it placed on the first day of the week. Hence that obliging potentate, in the year 321, promulgated the memorable edict, which, found in that Digest of Roman law known as the Justinian Code, Book III., Title 12, Sec. 2 and 3, reads as follows, viz.: "Let all judges and all people of the towns rest and all the various trades be suspended on the venerable day of the Sun. Those who live in the country, however, may freely and without fault attend to the cultivation of their fields lest, with the loss of favorable opportunity, the commodities offered by Divine Providence shall be destroyed." Thus we see that the primary movement towards enforcing the observance of Sunday, or Lord's Day, as the Sabbath, did not originate in a Divine command, but in the edict of an earthly potentate.

This edict was ratified at the third council of Orleans, in the year 538; and in order, "that the people might not be prevented from attending church, and saying their prayers," a resolution was adopted at the same time recommending the observance of the day by all classes. From merely "recommending," the Church of Rome soon began to enforce the observance of the day; but, in spite of all her efforts, it was not until the 12th century that its observance had become so universal as to receive the designation of "The Christian Sabbath."

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Cognizant of the manner in which Sunday was made the Sabbath, Luther issued for the government of the Protestant communion the following mandate: "As for the Sabbath, or Sunday, there is no necessity for keeping it;" see Michelet's Life of Luther, Book IV., chapter 2. Luther also said, as recorded in Table Talk, "If anywhere the day (Sunday) is made holy for the mere day's sake; if anywhere anyone sets up its observance upon a Jewish foundation, then I order you to work on it, to dance on it, to ride on it, to feast on it, and to do anything that shall reprove this encroachment on the Christian spirit of liberty." Melancthon, Luther's chief coadjutor in the work of Reformation, denied, in the most emphatic language, that Sunday was made the Sabbath by Divine ordainment; and in reference thereto John Milton, in reply to the Sunday Sabbatarians, makes the pertinent inquiry: "If, on a plea of Divine command, you impose upon us the observance of a particular day, how do you presume, without the authority of a Divine command, to substitute another in its place?"

During the reign of Elizabeth, Queen of England, a sect of fanatics, known as Dissenters or Nonconformists, basing their action upon the fallacious arguments derived from the fourth commandment, and upon the plea that the Saviour was raised from the dead on the first day of the week, inaugurated what is known as the Puritan Sabbath, which having been transferred to our shores by the voyagers in the Mayflower, and enforced by those statutory enactments known as Blue Laws, caused the people of New England to have a blue time of it while the delusion lasted; and now a large body of Protestant clergy perverting the teachings of scripture, and, ignoring the authority of the Reformers, are disturbing the peace of society by their efforts to enforce the code of sundry laws, which were enacted through their connivance. Thus have we shown that, originating with the Catholics and adopted by the Protestants, the Sunday Sabbath is purely and entirely a human institution, and, being such, we must recognize all Sunday laws as grave encroachments upon constitutional liberty; and it behooves the advocates of individual rights to demand

their immediate repeal; for unless a vigilant watch is kept upon the conspirators who secured their enactment, our fair land will soon be cursed by a union of church and State, the tendency in that direction having been indicated by the unprecedented opinion recently handed down by one of the Justices of the United States Supreme Court that this is a Christian Government.

PIOUS FRAUDS.

By claiming to be divinely appointed for the propagation of a divinely authenticated religion, the priesthood of all forms of worship have ever labored to deceive and enslave the ignorant multitude; and in support of these fallacious assumptions have resorted to all manner of pious frauds, in reference to which we quote from both Pagan and Christian sources with the view to showing that the moderns have faithfully followed the ancient example. Euripedes, an Athenian writer, who flourished about 450 years before the beginning of our era, maintained that, "in the early state of society, some wise men insisted on the necessity of darkening truth with falsehood and of persuading men that there is an immortal deity who hears and sees and understands our actions, whatever we may think of that matter ourselves." Strabo, the famous geographer and historian of Greek extraction, who flourished about the beginning of the Christian era, wrote that "It is not possible for a philosopher to conduct by reasoning a multitude of women and the low vulgar, and thus to invite them to piety, holiness and faith; but the philosopher must make use of superstition and not omit the invention of fables and the performance of wonders. For the lightning and the ægis and the trident are but fables, and so all ancient theology. But the founders of states adopted them as bugbears to frighten the weak-minded." Varro, a learned Roman scholar, who also flourished about the beginning of our era,

wrote that "There are many truths which it is useless for the vulgar to know, and many falsehoods which it is fit that the people should not know are falsehoods."

So much from Pagan authorities relative to the necessity of deceiving the ignorant masses. We will now present some Christian authorities upon the same subject; and first from Christ himself, who in addressing his disciples is made to say, in Mark iv, 11, 12, "Unto you it is given to know the mystery of the kingdom of God; but unto them that are without all these things are done in parables, that seeing they may see and not perceive; and hearing they may hear and not understand." Paul, in his fourteen Epistles, inculcates and avows the principle of deceiving the common people. He speaks of having been upbraided by his own converts with being crafty and catching them with guile and of his known and wilful lies abounding to the glory of God. See Romans iii. 7, and II. Cor. xii. 16. If Christ and Paul were guilty of deception, their followers had good excuse for the same course of conduct. Upon this subject Beausobre, a very learned ecclesiastical writer, who flourished about the beginning of the 18th century, says: "We see in the history which I have related a sort of hypocrisy that has been, perhaps, but too common at all times; that churchmen not only do not say what they think, but they do say the direct contrary of what they think. Philosophers in their cabinets; out of them they are content with fables, though they well know that they are fables." Historie de Manichee, vol. 2, page 568. Bishop Synesius, the distinguished author of religious literature and Christian father of the 5th century, said: "I shall be a philosopher only to myself, and I shall always be a bishop to the people." Mosheim, the distinguished author of Ecclesiastical History, Vol. I., page 120, says: "The authors who have treated of the innocence and sanctity of the primitive Christians have fallen into the error of supposing them to have been unspotted models of piety and virtue, and a gross error indeed it is, as the strongest testimonies too evidently prove." The same author, in Vol. I., page. 198, says in the fourth century "it was an almost universally adopted maxim that it was an act of virtue

to deceive and lie, when by such means the interest of the church might be promoted." In his Ecclesiastical History, Vol. II., page 11, he says that "as regards the fifth century, the simplicity and ignorance of the generality in those times furnished the most favorable occasion for the exercise of fraud; and the impudence of impostors in contriving false miracles was artfully proportioned to the credulity of the vulgar; while the sagacious and the wise, who perceived these cheats, were overawed into silence by the dangers that threatened their lives and fortunes if they should expose the artifice." Thomas Burnet, D.D., who flourished about the beginning of the 18th century, in his treatise entitled De Statu Mortuorum, purposely written in Latin that it might serve for the instruction of the clergy only, and not come to the knowledge of the laity, because, as he says, "too much light is hurtful for weak eyes," not only justifies, but recommends the practice of the most consummate hypocrisy, and that, too, on the most awful of all subjects; and would have his, clergy seriously preach and maintain the reality and eternity of hell torments, even though they should believe nothing of the sort themselves. See page 304. Hugo Grotius, the eminent writer of Holland in the 17th century, says in his 22d Epistle: "He that reads ecclesiastical history, reads nothing but the roguery and folly of bishops, and churchmen." In the language of Robert Taylor, from whom we have taken most of the quotations under this heading, we assert that "no man could quote higher authorities," to prove "the roguery and folly of bishops and churchmen."

CONCLUSION.

Having presented the evidences in support of the apparently untenable assertion that, notwithstanding the

numerous modes in which man has manifested his devotional proclivities, the world has virtually had but the one religion founded in the worship of personified nature, we are necessitated to recognize the facts that the Christian Scriptures like the sacred records of other forms of nature worship are, but a collection of astronomical allegories; that the gospel story is truly "the old, old story" which had been told of a thousand other Saviours before it was applied to the Christian Messiah; that Jesus is but one of the many names given to imaginary incarnations of the mythical genius of the sun; and that the Disciples and Evangelists are but the genii of the months and the seasons. Such being the facts, which cannot be successfully refuted, we must believe that the Christian religion, instead of being of Divine authenticity, as popularly claimed, is purely and entirely of human origin, and that all its teachings relative to a future state are but priestly inventions, concocted for the purpose of enslaving the ignorant masses.

When we think of the thousand millions of dollars invested in church properties, and estimate the cost of maintaining more than a hundred thousand priests and ministers, in supporting foreign and domestic missions and in publishing religious literature; besides the taxes applied to the care of the religious insane, and realize the fact that all of this vast sum of money is abstracted from the resources of the people, we would not have to go outside of our own country to appreciate the fact that religion is the burden of all burdens to society; and when we contemplate the great disturbance to the social relation, resulting from sectarian strife, and the almost universal disposition of Christians to persecute and ostracize those who differ with them in opinion, we can readily subscribe to the sentiment accredited to one of our revolutionary sires, that "this would be a good world to live in if there was no religion in it." If the clergy had been laboring as faithfully to impress the observance of ethical principles as they have to indoctrinate the people with the superstitions of religion, we would not now be deploring the great demoralization of society. It is a grave

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arraignment of the clericals to charge them with being, indirectly, the cause of this lamentable state of things; but it is a condition that might have been expected, for, when entering the ministry, they engaged themselves, not so much to teach ethics as to propagate faith in the doctrines of their respective sects. Thus hampered they cannot do the good to society their better natures might desire. Hence the only hope for improvement is for the people to wholly ignore the dogmatic element of religion, and refusing to longer support it, demand that moral training shall be the grand essential of education. If this course were adopted and persistently followed, it would be but a question of time when mankind would come into being with such a benign heredity that crime would be almost impossible.

Then, since religion inculcates a salvation that does not save, let us rise superior to its false teachings and, accepting science as the true saviour of mankind, find our whole duty in the code of natural morality, the spirit of which is embodied in that comprehensive precept known as the golden rule, which, being the outgrowth of the discovered necessities of association, without which society could not exist, it necessarily constituted man's sole rule and guide long before priest or temple; and founded in the eternal principles of right, truth and justice must remain as man's sole rule and guide when priest and church are numbered among the things that were. Spirit of progress! speed the day when all mankind, redeemed from the bondage of superstition, will recognize the great truth that nature, governed by her own inherent forces, is all that has been, all that is and all that shall be; and that, ceasing to indulge in the vain hope of a blissful immortality in a paradise beyond the stars, will make a real paradise of this old earth of ours.

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[1]

(Editorial note: the original text erroneously attributed this quote to Genesis 20:8-11; actually it is from Exodus 20:8-11.)

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Book eight

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An Introduction to Astrology

by William Lilly

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Preface

AFTER a lapse of 205 years since the first publication, in 1647, of *Lilly's Introduction to Astrology*, there would be no necessity for an apology for its re-appearance, were it not for the prevailing fashion of the day, which is to rail at and vituperate that science, and all who dare to say a word, not in its favour, but in favour of examining into its merits, with a view to ascertain what were the grounds on which our honest ancestors believed, and strictly followed, that which we conceive only fit for ridicule. As I have long outlived the days when I, like many others, thought myself at liberty to laugh at, and condemn, what I did not understand; the world will forgive me if I be bold enough to advise those who value truth, to spend a few days (and but a few days will be necessary) in examining the principles laid down in this work, and applying them to their own individual cases, before they join the herd of learned and unlearned in pledging their words to a false assertion, viz. that Astrology is an unfounded science. If any man will take the trouble to examine for himself, and should find that the prejudices of his education against the science of foreseeing the future, and many other matters which it teaches, are in reality well-founded, and that it has no claims to truth, then will he have the proud satisfaction of knowing, that his opinions on a matter of some consequence are based on experiment, and are the result of his own conviction, not of another person's assertion. On the other hand, if he find truth flash with lightning force upon his mind, and convince him that Astrology, notwithstanding prejudice and abuse, is founded in nature, and is indeed a noble science, given by a benevolent Creator to enlighten man in his wanderings, and enable him to shun the vice and folly which his passions throw in his path; then will he, if a spark of piety exist within his breast, offer thanks to that Creator for the blessing he has discovered. In either case, he must admit that I do him a service in putting forth this plain and simple means of discovering the truth.

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This is “the age of enquiry;” and yet prejudice continues to press down her leaden foot upon the neck of examination in this matter. I can only attribute the pitiable fact to the circumstance of there being no recent publications on those parts of Astrology which are the most easily acquired. The art of *Nativities* requires many years of patient experimenting before it can be well understood, and practised with certainty and satisfaction. The art of *Atmospherical Astrology*, and also that of *Mundane Astrology*, alike demand much time to penetrate their arcana, and a good education to follow their practice. Hence we may account for their comparatively confined study: few have either the abilities or the opportunity to wrestle with their difficulties.

But *Horary Astrology*, the chief subject in this work. may be speedily learned by any person of even moderate abilities; and may, as far as regards its elementary difficulties, be mastered in a few days’ study. It may be well understood, and reduced to constant practice in less than a quarter of a year, and no one will find himself at a loss for occasions to test its reality or its utility; for his own avocations, and the affairs of his friends, will offer these almost daily. If a proposition of *any nature* be made to any individual, about the result of which he is anxious, and therefore uncertain whether to accede to it or not, let him but note the hour and minute when it was *first* made, and erect a figure of the heavens, as herein taught, and his doubts will be instantly resolved. He may thus, in five minutes, learn infallibly whether the affair will succeed or not; and, consequently, whether it is prudent to adopt the offer made or not. If he examine the sign on the 1st house of the figure, the planet therein, or the planet ruling the sign, *will exactly describe the party making the offer*, both in person and character; and this may at once convince the inquirer for truth of the reality of the principles of the science.

Moreover, the descending sign, &c. will *describe his own person and character*; a farther proof of the truth of the science, if he require it. Here, then, is a ready test of the *truth* of Astrology. Will its adversaries dare to make its application? It would, methinks, be better

than relaxing the broad muscles, which ever denote ignorance and surprise, the feelings which, combined are the undoubted source of laughter; the only argument of the idiot, the ready resource of the ignorant. In editing this work, my chief object has been to render it useful to the student in Astrology and so, by forwarding the science, to promote the general interests of humanity.

With this view I have re-written those parts of the work which modern discoveries in Astronomy and Astrology have rendered obsolete. *Tables for calculating Nativities* and a *Grammar of Astrology* are adjoined, and every ingredient of the science given which the student is likely to require.

As regards the deviations I have made from the rules of the author, they are few, and founded on much experience. I have omitted his chapters on nativities, as in that part of the science he was less perfect than in any other; the reason being that he relied on essential dignities, which are, by my experience, of little, if any, avail. The rules for calculating arcs of direction will be found in the *Grammar*.

In conclusion, I have no desire to offend any class of men by putting forth this work: I do not know whether I should not respect even prejudice, for the sake of peace, were it not that I cannot conscientiously consent to abandon truth in the effort. I am callous to the puny efforts of critics who may desire to pour on me the waters of vituperation or ridicule, having already passed through a flood. After many years' experience, I have found the laws of Astrology unfailing; and as I can discover no prohibition of its practice in the Word of God, I am prepared to defend it against all the foolish attacks of those who falsely declare that it upholds fatality, or is opposed to the providence or the revelation of the Deity. And I am contented, with God's blessing, to give up the ghost in the firm persuasion, that, in Maintaining what I believe is the truth in this respect, I shall meet, hereafter, through the goodness of God and the merits of my Saviour, with a merciful judgment.

I am, reader, your devoted friend and well-wisher in all science which may honour trod and benefit mankind.

ZADKIEL.

Life Of William Lilly

IN offering an abstract of the most valuable of this clever astrologer's works to the notice of the public, I consider myself called upon to make some mention of his personal history. And it fortunately happens that this is not made up of imaginary ideas, founded on a few known facts, and a multiplicity of suppositions; for what we know of this man of extraordinary talent rests on the best evidence. He undertook, in his sixty-sixth year, to write a history of his own life to his "worthy friend," Elias Ashmole, Esq., afterwards Sir Elias Ashmole, the founder of the celebrated museum which bears his name. Mr. Ashmole made marginal notes therein, which testify his high opinion of our Author; and, fortunately for the cause of Astrology, this gentleman verified the correctness of the Figures of Heaven, which are given in the subsequent pages; for we find the following note at the foot of page 131:--"*I devised the forms and fashions of the several schemes, E. A.*" This note was made after these observations of Lilly. "The desire I had to benefit posterity and my country, at last overcame all difficulties; so that what I could not do in one year, I perfected early the next year, 1647; and then in that year, viz. 1647, I finished the third book of nativities; during the composing whereof, for seven whole weeks, I was shut up of the plague, burying in that time two maid servants thereof; yet, towards November that year, the Introduction, called by the name of *Christian Astrology*, was made publick."

The fact of this work having been chiefly composed under such awful circumstances, with a dreadful death immediately before his eyes, with the pestilence ravaging his own

house-hold, might, with unprejudiced men, have been taken as a proof that the writer was sincere in what he wrote; and really believed in the truth of that which he taught to others as truth under the solemn appeal to Almighty God, which is so beautifully worded in his introductory epistle. Modern critics, however, can see no force in this argument, but unhesitatingly condemn *William Lilly* "as an accomplished impostor, and a knavish fortune-teller."[1] Such, reader, is the force of prejudice. It will not allow men to examine before they condemn; for if it did, then would the literary world speedily acknowledge the reality of those doctrines which our Author has so ably set forth in the following pages.

William Lilly was born of an honest yeoman family, in the town of "Diseworth, seven miles south of the town of Derby, on the first day of May, 1602." At eleven years old he was sent to Ashby de la Zouch, to be instructed by one Mr. John Brindley. Here he says he learned the following authors, viz., *Sententiæ Pueriles*, *Cato*, *Corderius*, *Æsop's Fables*, *Tully's Offices*, *Ovid de Tristibus*; lastly, *Virgil*, then *Horace*; as also *Camden's Greek Grammar*, *Theognis*, and *Homer's Iliads*; and entered *Udall's Hebrew Grammar*. In the eighteenth year of his age his master "was enforced from keeping school, being persecuted by the Bishop's officers;" and our Author was "enforced to leave school." He then kept school himself for "one quarter of a year." On Monday, April 3rd, 1620, he left Diseworth and came to London, where he was compelled to accept the humble situation of a footboy, his father being then "in Leicester gaol for debt," and, of course, incapable of doing much for his son. He had only seven shillings and sixpence left when he arrived at London, having "footed it all along" with the carrier. In 1624 his mistress died, having given him "five pounds in old gold." After which he lived "most comfortably," his master having a great affection for him. In 1626 his master married again, having first settled on our Author twenty pounds a year, which he enjoyed all through life. In October, 1627, he was made free of the Salters' Company. And on the "eighth day of September, 1627,"

married his master's widow, this same lady; and they "lived very lovingly" until her death, October, 1633.

In the year 1632 he began to study Astrology, being instructed in the rudiments by one Evans, a Welshman, of indifferent abilities. Lilly tells us that he applied himself to these interesting studies "many times, twelve, or fifteen, or eighteen hours, day and night;" adding, "I was curious to discover whether there was any verity in the art or not." By this his first wife he acquired a fortune of "very near to one thousand pounds." In the year 1634 he purchased the moiety of thirteen houses in the Strand, for which he gave £530. The figure of the heavens, erected on this occasion, will be found in the following pages. November the 18th, 1634, he married again, and had £500 portion with that wife. "She was of the nature of Mars," and he lived not very lovingly with her, as seems by his observations at her death. He appears to have now practised horary astrology with success, and to have instructed numerous individuals in the art; among others he taught John Humphreys, in the year 1640, for which service he received forty pounds. He also wrote, in the year 1639, a Treatise on the Eclipse of the Sun, May 22d, 1639; and appears, about that period, to have turned his attention much to Mundane Astrology. He says,[2] "I did carefully, in 1642 and 1643, take notice of every grand action which happened betwixt king and parliament; and did first then incline to believe, that, as all sublunary affairs did depend upon superior causes, so there was a possibility of discovering them by the configurations of the superior bodies; in which way making some essays in those two years, I found encouragement to proceed further, which I did: I perused the writings of the ancients, but therein they were silent, or gave no satisfaction; at last, I framed unto myself that method which then and since I follow, which I hope, in time, may be more perfected by a more penetrating person than myself."

He appears to have dabbled a little in magic also, but he soon "grew weary of such employment," and burned his books. Lilly's better sense led him to perceive which of these studies was worthy of an honest and intelligent man's pursuit, and which not.

About April, 1644, he first published *Merlinus Anglicus Junior*. This work contained some of his most remarkable predictions, and was continued for many years. It attracted much attention, and was the means of adding greatly to the fame of our Author as an Astrologer. In that year he printed the *White King's Prophecy*, "of which were sold, in three days, eighteen hundred:" and some other works of like nature, the *Prophetical Merlin*, &c.

In 1645 he was twice had before a Committee of the Parliament, for some observations in his *Starry Messenger*; but he escaped, partly by means of his numerous friends, and partly by his own ingenuity.

In 1647, when he published the present work, he was introduced to General Fairfax, who paid him and his art some compliments. In this year he was consulted by King Charles I., as to a safe place to conceal his royal person; but the King, unfortunately for himself, neglected Lilly's advice, and was accordingly ruined. Again, in 1648, the King consulted Lilly; but though he promised to take the Astrologer's advice, and come up to London with the Commissioners, he did not, however, keep his word, and again lost a good opportunity of escaping from his evil destiny.

"In this year," says Lilly, "for very great considerations, the council of state gave me in money fifty pounds, and a pension of one hundred pounds *per annum*, which for two years I received, but no more." In January 1649 he was present at the trial of King Charles, "who spoke," says he, "excellently well."

In 1651 he published *Monarchy or No Monarchy*, which contained several hieroglyphics; among others those of the great plague and fire of London, which the reader will find a copy of in this work.

These celebrated predictions were made by means of the motions of the fixed stars, as is evident by the words of Lilly; who says, "the asterisms and signs and constellations give greatest light thereunto." *The Bull's North Horn*, a star which, Ptolemy says, is "like Mars," was, in the year 1666, when the fire occurred, in ♊17° 54′, which is the exact ascendant of London. It was, no doubt, by this means Lilly judged the city would suffer by fire; for in his Almanac for 1666 he states, that the 19th degree of ♊is London's horoscope. Our Author was not very nice in his calculations; and it may be observed, that though it may be called the 19th degree, being within 6 minutes of it, yet, in reality, ♊17° 54′ is the true ascendant of London. It was that which ascended at the moment of *driving the first pile of the new London Bridge*.

The longitude of the *Bull's North Horn*, 1st January, 1834 ♊20° 15′

Longitude of London's ascendant ♊ 17 54

Difference 2 21

This difference of 2° 21′ is equal to 8460 seconds of longitude, which, divided by 50⅓" (the rate at which the fixed stars proceed yearly), gives 168.

From the year 1834

Take away 168

1666

it gives the year when that evil star was crossing the ascending sign of London. And as it is of the *fiery* nature of Mars, we need not be surprised that it produced such terrific

results. The celebrated *Nostradamus* had predicted the same event in that year, about 111 years previously, as follows:

"Le sang du juste à Londres fera faute
Bruslez par feu, de vingt et trois, les six."

The blood of the just, which has peen spilt in London, requires it to be burned with fire in sixty-six. He states that he made this prediction by "Astronomical Affections."

In 1651 Lilly was again had before the Parliament, on ac-count of his predictions, and was thirteen days in the custody of the Serjeant-at-Arms. But the prediction which gave offence, viz. that the "Parliament stood upon a tottering foundation, and that the commonalty and soldiery would join together against them," was amply fulfilled by the members being turned out of doors by Oliver Cromwell.

In February, 1654, his second wife died; and in October following he married a third, signified, in his nativity, "by *Jupiter in Libra*; and," says he, "she is so totally in her conditions. to my great comfort."

In 1655 he was indicted at Hicks's Hall by a half-witted young woman. The cause of the indictment was, that he had given judgment upon stolen goods, and received two shillings and sixpence; contrary to an act made in King James's time.

"I owned," says he, "the taking of half-a-crown for my judgment of the theft, but said, that I gave no other judgment but that the goods would not be recovered, being that was all which was required of me. I spoke for myself, and introduced my own *Introduction* into court, saying, that I had some years before emitted that book for the benefit of this and other nations; that it was allowed by authority, and had found good acceptance in both Universities; that the study of Astrology was lawful, and not contradicted by any scripture.; that I neither had, or ever did, use any charms, sorceries,

or enchantments, related in the bill of indictment,' &c. The jury, who went not from the bar, brought in, No true Bill."

"In 1666 happened," says our Author, "that miraculous conflagration in the city of London, whereby, in four days, the most part thereof was consumed by fire." He then gives an account of his being brought before the House of Commons by the following summons:

MONDAY, 22nd OCTOBER, 1666.

"At the Committee appointed to enquire after the causes of the late fires:--

"ORDERED,

"That Mr. Lilly do attend this Committee on Friday next, being the 25th of October, 1666, at two of the clock in the afternoon, in the Speaker's chamber, to answer such questions as shall be then and there asked him.

"ROBERT BROOKE."

In remarking on the circumstance, he says, "I conceive there was never more civility used unto any than unto myself; and you know there was no small number of parliament men appeared, when they heard I was to be there."

"Sir Robert Brooke spoke to this purpose:--

"'Mr. Lilly, this Committee thought fit to summon you to appear before them this day, to know, if you can say anything as to the cause of the late fire, or whether there might be any design therein. You are called the rather hither, because, in a book of your's long since printed, you hinted some such thing by one of your hieroglyphics.' Unto which I replied,

"May it please your honours,

Zaid n. adwan

"After the beheading of the late King, considering that in the three subsequent years the parliament acted nothing which concerned the settlement of the nation's peace, and seeing the generality of the people dissatisfied, the citizens of London discontented, the soldiery prone to mutiny, I was desirous, according to the best knowledge God had given me, to make enquiry by the art I studied, what might, from that time, happen unto the parliament and nation in general. At last, having satisfied myself as well as I could, and perfected my judgment therein, I thought it most convenient to signify my intentions and conceptions thereof in forms, shapes, types, hieroglyphicks, &c., without any commentary, that so my judgment might be concealed from the vulgar, and made manifest only unto the wise; I herein imitating the examples of many wise philosophers who had done the like. Having found, Sir, that the city of London should be sadly afflicted with a great plague, and not long after with an exhorbitant fire, I framed these two hieroglyphicks, as represented in the book, which, in effect, have proved very true."

"Did you foresee the year?" said one. I did not," said I, or was desirous; of that I made no scrutiny." "I proceeded:--'Now, Sir, whether there was any design of burning the city, or any employed to that purpose, I must deal ingenuously with you; that, since the fire, I have taken much pains in the search thereof, but cannot, or could not, give myself any the least satisfaction therein. I conclude that it was the finger of God only; but what instruments he used thereunto I am ignorant.'

"The Committee seemed well pleased with what I spoke, and dismissed me with great civility."

After this, nothing very remarkable happened to our Author. He left London, having acquired an independence, and settled at Hersham, in the year of the great plague, 1665. He then applied himself diligently to the study of physic, and on the 11th October, 1670, he received a licence to practise as a physician. He continued to practise with much success, no doubt by applying his astrological science thereto; and he gave his

advice and, prescriptions freely, without money. His skill and his charity gained him extraordinary credit and estimation.

He continued generally in good health till August, 1674; but his health and his eyesight remained very weak afterwards. He still continued to write his monthly observations and astrological judgments, though latterly by aid of an amanuensis (Mr. Henry Colley, who succeeded him as an astrologer), even until the year 1682.

In the beginning of 1681 he was seized with a flux, which he recovered from, but then became totally blind. The 30th of May of that year he was seized with a dead palsy; and, after some days of severe suffering, he died about three o'clock on the morning of the 9th of June, 1681, "without any shew of trouble or pangs."

He was buried in the chancel of Walton Church, his friend, Sir Elias Ashmole, assisting at the laying him in his grave, which was "on the left side of the communion table."

A black marble stone was afterwards placed thereon by Ins friend, with the following inscription:

Ne Oblivione Conteretur Urna
GULIELMI LILLII
ASTROLOGI PERITISSIMI
QUI FATIS CESSIT
Quinto Idus Junii Anno Christo Juliano
MDCLXXXI
Hoc Illi posuit amoris Monumentum
ELIAS ASHMOLE
ARMIGER.

"*An Epistle to the Student in Astrology*.

“My Friend, whoever thou art, that with so much ease shalt receive the benefit of my hard studies, and doest intend to proceed in this heavenly knowledge of the starres; In the first place, consider and admire thy Creator, be thankful) unto him, and be humble, and let no naturall knowledge, how profound or transcendant soever it be, elate thy mind to neglect that Divine Providence, by whose al-seeing order and appointment all things heavenly and earthly have their constant motion: the more thy knowledge is enlarged, the more doe thou magnify the power and wisdome of Almighty God: strive to preserve thyself in his favour; for the more holy thou art, and more neer to God, the purer judgment thou shalt give.

“Beware of pride and self-conceit: remember how that long agoe no irrationall creature thirst offend man the Macrocosme, but did faithfully serve and obey him; so long as he was master of his own reason and passions, or until he subjected his will to the unreasonable part. But, alas! when iniquity abounded, and man gave the reins to his own affection, and deserted reason, then every beast, creature, and outward harmfull thing, became rebellious to his command. Stand fast (oh, man) to thy God: then consider thy own nobleness; how all created things, both present and to come, were for thy sake created; nay, for thy sake God became man: thou art that creature, who, being conversant with Christ, livest and reignest above the heavens, and sits above all power and authority. How many pre-eminences, privileges, advantages, hath God bestowed on thee: thou rangest above the heavens by contemplation, conceivest the motion and magnitude of the stars: thou talkest with angels, yea, with God himself: thou hast all creatures within thy dominion, and keepest the devils in subjection. Doe not, then, for shame deface thy nature, or make thyself unworthy of such gifts, or deprive thyself of that great power, glory, and blessednesse, God hath allotted thee, by casting from thee his favour ‘ for possession of a few imperfect pleasures.

Zain Adwan

"Having considered thy God, and what thyself art, during thy being God's servant, now receive instruction how in thy practice I would have thee carry thyself. As thou daily conversest with the heavens, so instruct and form thy mind according to the image of Divinity: learn all the ornaments of virtue, be sufficiently instructed therein: be humane, curtius, familiar to all, easie of accesse: afflict not the miserable with terrour of a harsh judgment; direct such to call on God to divert his judgments impending over them: be civil, sober, covet not an estate; give freely to the poor, both money and judgment: let no worldly wealth procure an erronious judgment from thee, or such as may dishonour the art. Be sparing in delivering judgment against the common-wealth thou livest in; avoyd law and controversie: in thy study be *totus in illus*, that thou mayest be *singulus in arte*. Be not extravagant, or desirous to learn every science; be not *aliquid in omnibus*; be faithfull, tenacious, betray no ones secrets. Instruct all men to live well: be a good example thyselfe; love thy own native country; be not dismaid if ill spoken of, *conscientia mille testes*. God suffers no sin unpunished, no lye unrevenged. Pray for the nobility, honour the gentry and yeomanry of England; stand firme to the commands of this parliament; have a reverent opinion of our worthy lawyers, for without their learned paines, and the mutual assistance of some true spirited gentlemen, we might yet be made slaves, but we will not; we now see light as well as many of the clergy. Pray, if it stand with God's will, that monarchy in this kingdom may continue, his Majesty and posterity reigne; forget not the Scottish nation, their mutual assistance in our necessity, their honourable departure. God preserve the illustrious *Fairfax*, and his whole armye, and let the famous city of London be ever blessed, and all her worthy citizens.[3]

"WILLIAM LILLY."

Chapter 1

THERE are in the heavens several bodies which appear to shed their light directly on this Earth; and also some others which, having no light of themselves, serve to reflect that of the Sun, and thereby become visible to our organs of sight. The former are termed *Fixed Stars*, because they appear to retain the same situation, or to be fixed in the same place; but the latter, being observed to wander, are termed Planets. The number and distance of the former are so extensive, that I shall take no further notice of them here, than to observe, that they are not much used in that portion of Astrology which is denominated *Horary*, and that those persons who desire to make use of them in nativities, will find their right ascensions and declinations given with great accuracy in the Nautical Almanack for each year. In the Appendix to this work, I shall give rules, to ascertain their latitude and longitude by, trigonometry, for the benefit of such persons as may be curious to make experiments as to their influence; though I do not, in general, pay much attention to them when judging a nativity.

Of the Planets.

These are ♅Herschel, ♄Saturn, ♃Jupiter, ♂ Mars. ☉Sol, the Sun,[4] ♀ Venus, ☿Mercury, and ☽Luna, Moon. These characters have been always in use, and may, (with the exception of ♅) be traced to the remotest antiquity, and their origin found among the hieroglyphics of Egypt. But as the object of this work is practical utility, no more need be said on the subject.

The Signs of the Zodiac.

They are twelve, each containing 30 degrees, thus making 360 degrees, into which every great circle is divided. The first six are,

Northern Signs.

♈Aries, ♉Taurus, ♊Gemini, ♋Cancer, ♌Leo, ♍Virgo.

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Southern Signs.

♎Libra, ♏Scorpio, ♐Sagittary, ♑Capricorn, ♒Aquarius, ♓Pisces.

The first sign, ♈, commences the zodiac, its beginning being that spot in the heavens where the Sun is when crossing the equator in spring; and the latter sign, ♓, finishes the circle of the zodiac, the latter end of it being that spot in the heavens where the Sun is when he has gone his round, and is again about to enter ♈.

By referring to the annexed diagram, the student will perceive, that when the Sun enters ♈(about the 21st of March) he proceeds northward, and *increases in declination* until he reaches the tropic of ♋Cancer (about the 21st of June), when he speedily begins to return to the south; and when he reaches ♎, he again crosses the equator (about the 23d of September), where, having no declination, he causes equal day and night all over the world. He then *declines away to the south*; shortening our days in the northern hemisphere, until he reaches the southern tropic ♑, Capricorn; at length he returns towards the equator, and crosses it by entering the sign ♈(about the 21st of March), where again he has no declination, and gives equal days and nights.

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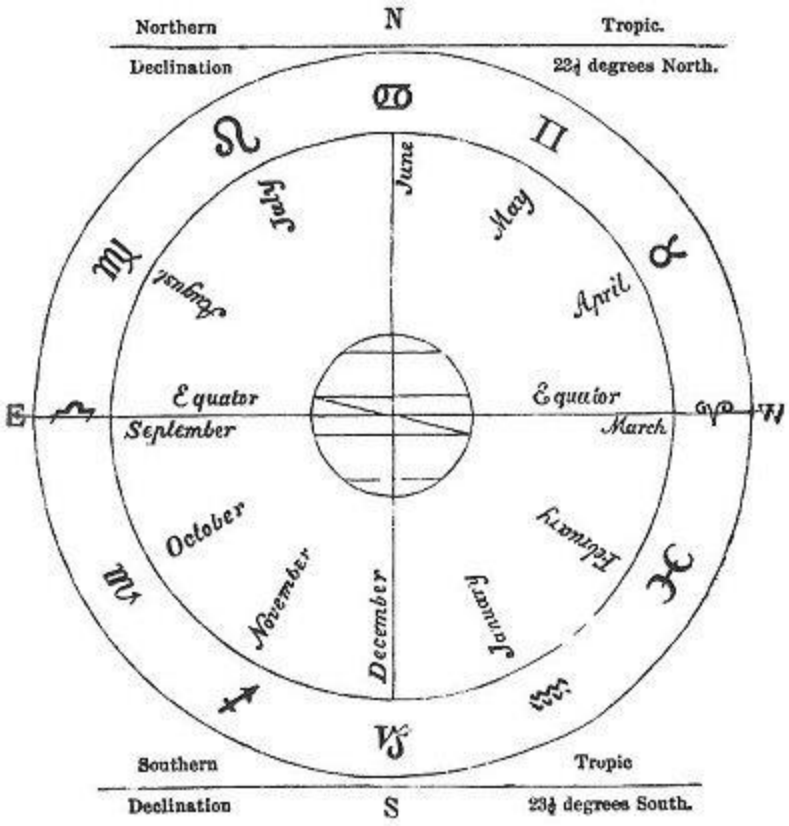

Diagram of the Sun's Motion in the Zodiac

EXPLANATION.--The space between the two outer circles may be considered as the line of the Sun's motion; and than the sign opposite the name of each month will shew where the Sun is about the 21st of each month. The globe in the centre may be taken for the Earth, the northern parts of which receive the greater portion of the Sun's light in summer, and the southern parts in winter.

These signs are divided into,

Northern Signs ♈, ♉, ♊, ♋, ♌, ♍

Southern Signs ♎, ♏, ♐, ♑, ♒, ♓

Tropical Signs ♋, and ♑

Equinoctial Signs ♈, and ♎

Double-bodied Signs ♊, ♍, ♐, ♓

They are again divided into

Moveable ♈, ♋, ♎, ♑

Common ♊, ♍, ♐, ♓

Fixed ♉, ♌, vi, ♒

Also into

Fiery ♈, ♌, ♐.

Earthy ♉, ♍, ♑.

Airy ♊, ♎, ♒.

Watery ♋, ♏, ♓.

The student must become well acquainted with the above particulars; but especially so with the northern and southern signs, the former being *opposite* to the latter. By attending to this, he will readily come to understand the figure of the heavens, and the relative situations of the planets.

N.B. The moveable, common, and fixed signs are always in *square* aspect to each other, three signs apart; and the fiery, earthy, airy, and watery signs are always in *trine* aspect to each other, four signs apart.

THE DRAGON'S HEAD AND TAIL

The Moon's north node is known by the character ☊, termed the Dragon's Head; and her south node by this ☋, termed the Dragon's Tail. The former of these in horary

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questions denotes good, and is considered of the character of ♃. and increases the good qualities of a benefic, with which it may be found; and diminishes the evil of a malefic planet. The latter is of the nature of ♄, and does the reverse. In nativities these characters have no avail, and are not to be considered, except with regard to the Moon, who is found to produce good or evil when she reaches them by direction. [5]

THE PART OF FORTUNE.

This is that spot in the heavens which is equally distant from the degree ascending that the Moon is from the Sun. It is found by the following rule:--

To find the (⊕) *Part of Fortune in a Nativity*.

Add 90° to the right ascension of the meridian, and it will give the oblique ascension of the ascendant. From the oblique ascension of the ascendant subtract the oblique ascension of the Sun (having first added 360° to the former, if necessary); to the remainder add the right ascension of the Moon: the sum will be the right ascension of ⊕.

The ⊕ is always *under* the horizon *before* the full Moon, and *above* the horizon *after* the full Moon. Having found its right ascension, take it from that of the meridian above or below the earth, according as it may be situated; or, take that of the meridian from it, and the sum or difference will shew the distance of ⊕ from the cusp of the 10th or 4th house.

Example:-- A. R. of midheaven 221 ° 5 ‘

Add thereto 90 _ 0 _

Oblique asc. of the ascendant 311 5

Subtract oblique asc. of ⊕ 17 _ 34 _

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293 31

Add right ascension of the ☽ 345 _ 34 _

639 5

Take away 360 _ 0 _

It leaves right ascension of ⊕ 279 5

Then, as the birth took place after full Moon, and the ⊕ will be above the Earth, find the difference of right ascension between it and the meridian above the Earth.

Thus: Right ascension of ⊕ 279 ° 5 ′

Right ascension of the midheaven 221 _ 5 _

Distance of ⊕ from the 10th house 58 _ 0 _

If the ⊕ be in the same hemisphere as the ☽; that is, if both be above or below the Earth, it will have the semi-arc of the ☽; but if otherwise, it will have the opposite semi-arc; which may be found by taking the ☽'s from 180°. In this nativity (which is that of the Duke of Wellington) the semi-arc of the Moon is 90° 57′, which taken from 180° leaves the semi-arc of ⊕ 89° 3′, two-thirds of which are 59° 22′; and it appears that ⊕ is just 1° 22′ outside the cusp of the 12th house.[6]

The ⊕ has no influence on the *health* or *life* of the native; but it influences the pecuniary affairs very powerfully, and also, in some degree, the profession or employment.[7]

To find the Place of ⊕ an the Figure of a Horary Question.

In horary astrology ⊕ is merely a symbol, and has much to do with all questions regarding property, loss or gain, &c. In this case it is found by a more simple rule, as follows:

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Add together the longitude of the ascendant and longitude of the ☽, from which subtract the longitude of the ☉: the remainder will be the longitude of ⊕.

Example:--Where was the ⊕ at 3h. 20m. P.M. 28th of December, 1644? [8]

Signs deg. min.

The Ascendant was ♋ 11° 33, or 3 11 33

The ☽was in ♉, 16° 49′, or 1 16 49

4 28 22

For subtraction add 12 0 0

16 28 22

The ⊕ in ♑, 17° 54, or 9 17 54

Place of in the figure or ♏ 10° 28′. 72 10 8

Chapter 2

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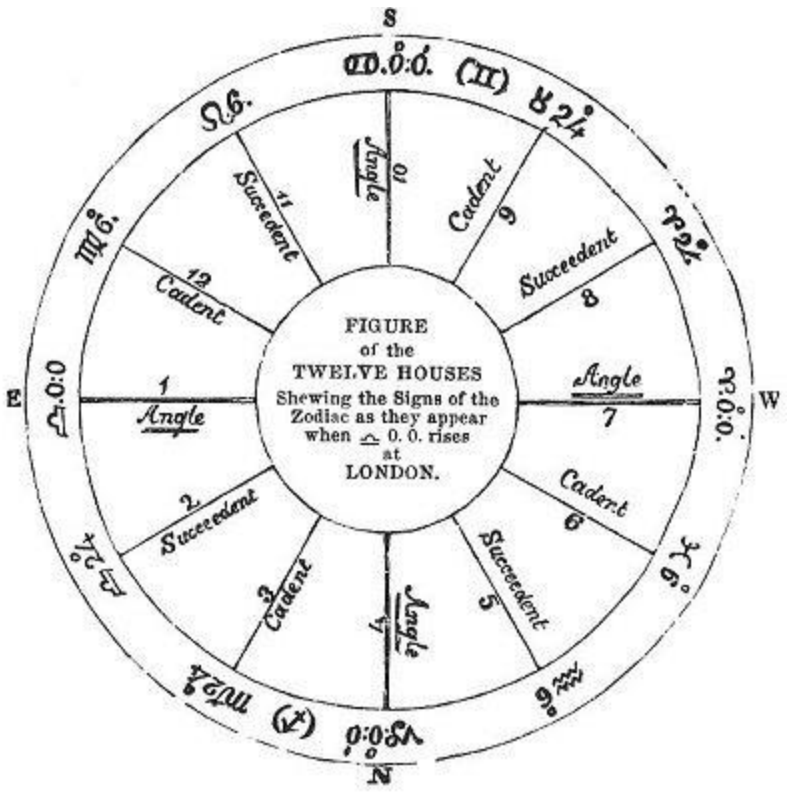

Fig. 1.

EXPLANATION.--In the above figure the ANGLES and the succeedent and cadent houses appear at one view. The 1st house embraces 24° of longitude in the zodiac, viz. from ♎0° 0′ to ♎24°; the 2nd house contains 30°, viz. from ♎24° to ♏240; the 3d house contains 36°, viz. from ♏24° to ♑0° 0′, being 6° of ♏and the whole of ♐; the 4th house contains 36°, viz. the whole of ♑and 6° of ♒; the 5th house contains 30°, viz. from ♒6° to ♓6°; and the 6th house contains 24°, viz. from ♓6° to the end of that sign, or ♈0° 0′.--N.B. The other *six* houses will be found to embrace exactly the same number of degrees of the opposite signs of the zodiac; the 7th being opposite to the 1st, the 8th to the 2d, &c. If the student look for ♋0° 0′ on the 10th house in the table of houses for London, he will find the longitude of the six *eastern* houses, as here noted; and, of course, the six opposite or *western* houses have the same degrees of the opposite signs on their cusps.

OF ERECTING A FIGURE OF THE HEAVENS.

THIS is merely a map to represent the heavens at any particular moment, such as when a child is born, or a question asked, &c. In the first place, draw three circles, as in figure 1; and then draw lines to represent the horizon, and others, at right angles with them, to represent the meridian: thus will be shewn, the natural divisions formed by the rising and setting of the Sun, and by his passing the meridian at noon and midnight. Each of these quarters or quadrants is to be again divided into three equal parts, forming

The Twelve Houses.

These are marked from No. 1 to No. 12; and it will be observed, that the double lines 1 and 7, which represent the eastern and western horizons, and those marked 4 and 10, which represent the meridians below and above the Earth, are the cusps or commencement of the *angles*. Those lines numbered 2, 5, 8, and 1l, are the cusps of the *succeedents*, so called because they follow or *succeed* to the angles. These houses are next in power to the angles. Those lines marked 3, 6, 9, and 12, are the cusps or beginnings of the *cadent* houses; so called because they are *cadent*, that is, *falling* from the angles: these are the weakest of all the houses.

Thus the student will perceive, that if a planet, &c. be in one of the *angles*, it is powerful; if in a *succeedent* house, it is less powerful; and if in a *cadent* house, it is weak and in capable of effecting much either good or evil.

Rule to erect the Figure of the Heavens at any Time.

1. Learn in an ephemeris[9] for the year what was the right ascension of ☉at the noon previous to the required time, in hours, minutes, and seconds. To this right ascension add the number of hours and minutes which have elapsed since that noon:[10] the sum

will be the right ascension in time of the meridian above the Earth (the mid-heaven) at the required time.

2. Find the longitude answering to this right ascension, in the column marked 10th house in the Table of Houses, which longitude is to be marked over the line which denotes the mid-heaven or 10th house.

3. In a line with this will be found the longitude on the cusps of the 11th, 12th, 1st, 2d, and 3d houses; which copy out from the table, and enter over the lines which denote those respective houses.

4. Having thus completed the *six eastern* houses, find the signs and degrees exactly opposite to each of them, and enter it over the cusps of the opposite or western houses, in the following order:--

10th house opposite 4th house

11th do. 5th

12th opposite 6th house

1st or ascendant do. 7th

2d do. 8th

3d do. 9th

5. Having thus completed the figure, as far as regards the signs of the zodiac, it now remains to place in the planets as they may be situated. The most distant from the ☉is ☿, whose longitude is generally given in the ephemeris for each ten days, and if the time of the figure fall between it, it must be found by proportion. When his longitude is found, write it in the figure, thus, ☿13° 19′, just by the cusp of the house, which falls in the same sign. in which ☿is found. If the cusp be farther on than the planet in the sign,

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place the planet *outside* the cusp; but if the planet be the farthest advanced in the sign, place it *inside* the cusp. After having entered ☿, enter in the same way ♄, then ♃, ♂, ☉, ♀ and the ☽. To find the exact longitude of these seven, which is usually given for the noon of each day, find the distance they travel in longitude between the two noons preceding and succeeding the time of erecting the figure; and then take the proportional part for the time after the previous noon, and add it to, (or if the planet be retrograde subtract it from), the planet's longitude for the previous noon.

6. Find the longitude of ☊in the same manner, and enter it accordingly, and place ☋in the sign and degree and minute exactly opposite thereto.

7. If it be a horary question, calculate the place of ⊕, and enter it accordingly; when the figure of heaven will be complete. But if it be a nativity, you must calculate the ⊕ according to the rule given, first having prepared a Speculum, or Table of Data, as taught in *Chap*. 9 of the *Grammar of Astrology*.

Chapter 3. Of The Aspects

THE figure of the heavens being erected, it now remains to observe how the planets are situated as regards each other; or, in other words, how they are aspected. And, first,

Of Zodiacal Aspects.

These are as follow:--

Semi ✶, a Semi-sextile, or 30 degrees.

Semi □, a Semi-square, or 45 degrees.

✶, a Sextile, or 60 degrees.

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A Quintile, or distance of 72 degrees.

☐, a Square, or quartile, 90 degrees.

△, a Trine, or distance of 120 degrees.

A Sesquiquadrate, or square and a half, 135 degrees.

A Biquintile, or double quintile, 144 degrees.

☍an Opposition, 180 degrees.

Good aspects are the semi-sextile, sextile, quintile, trine, and biquintile.

Evil aspects are the semi-square, square, sesquiquadrate, and opposition.--N.B. The conjunction, marked thus ☌, is when two planets are in the same degree and minute of the zodiac: when it is exact, it is very powerful, and is called a *partile* ☌; but if within the planets' orbs, it is called a *platic* conjunction, and is less powerful. To know whether it should be considered at all, the orbs of the two planets should be added together, and one-half the sum taken; if the planets be beyond that distance, they are not even in platic ☌. The same holds good with regard to other aspects.

The orbs of the cusps of the houses are 5°, so that if A planet be one-half its orb and 5° more distant from a house, it is not in aspect to that house; the same if the *aspect* of the planet fall beyond that distance from the cusp of any other house.

Orbs of the Planets.

♄, 9°; ♃, 9°; ♂, 7°; ☉, 15, ♀, 7°; ☿7°; ☽, 12°.--N.B. ♅has had no orb of operation discovered; but I think it may safely be considered as 7° in all horary figures, &c.

Of Mundane Aspects.

These are formed by the houses in horary astrology, and by the semi-arcs of the planets in nativities. Thus, a semi ✶is 1 house; a semi ☐, 1½; a ✶, 2 houses; a ☐, 3 houses; a △, 4 houses; a sesqui △, 4½ houses; and an ☍, 6 houses.

The ⅓ of a semi arc is a semi ✶; the ½ of a semi-arc is a semi ☐; the ⅔ of a semi-arc is a ✶; the whole semi-arc is a ☐; and 1-5th less than the semi-arc is a quintile; the whole semi-arc and ⅓ more is a △; the whole semi-arc and ½ more is a sesqui ☐; the one-tenth part of a semi-arc added to a sesqui ☐, is a biquintile.--N.B. The entire arc of a planet, or double the semi-arc, will not give the measure of its distance from the opposite point of its place; but if the two semi-arcs of a planet, both diurnal and nocturnal, be added together, they make 180°, an opposition aspect.

Of Parallels.

The Zodiacal Parallel is when two planets have the same amount of declination from the equator. It is the most powerful of all aspects, but is not generally used in horary astrology.

The Mundane Parallel is an equal distance from the meridian. It is used by some horary astrologers. When any of the above aspects are formed between the planets, they are found to have a mutual influence or action on each other; according to the nature of the aspect. For example: if the ☉be 60 degrees (a ✶) from ♃in any figure, it *denotes* that the person signified by the Sun is under the benefit influence of the benevolent ♃; and *shews* success according to the nature of the question. In nativities it *causes* good health and good fortune in life. But if ☉be 90 degrees (a ☐) from ♄, it *shews* discredit, a failure of hopes, &c. in a question; and in a nativity it produces much sickness to the native, and also misfortunes to his father. This was verified in the nativity of Napoleon Bonaparte's son, who was born at 9h. 15m. A.M. 20th March, 1811, when ☉was in 28° 53'° of ♓, and ♄was in 26° 28′ of ♐; just 92° 25 distant from each other. This very close

□aspect of ☉and ♄caused great trouble to the native, through his father's misfortunes; and, ☉was the hyleg, produced a consumptive disease, and early death. It is remarkable, that his father's troubles began immediately after his birth; and it will always be found in the nativity of a child, that the fortune of its parents may be ascertained thereby until the birth of another child. If, for example, the child have evil planets in the fourth house, its father will be more or less-unfortunate until the birth of another child; when, if that other have ♃and 💀 in the fourth house, the father's affairs will become more fortunate: so very beautifully do the nativities of parents and their children sympathise together.

Chapter 4. Of The Twelve Houses, Their Nature And Signification

As before we have said there are twelve signs, and also twelve houses of heaven; so now we are come to relate the nature of these twelve houses, the exact knowledge of which is so requisite, that he who learns the nature of the planets and signs without exact judgment of the houses, is like an improvident man, that furnishes himself with a variety of household stuff, having no place wherein to bestow them. There is nothing appertaining to the life of man in this world which, in one way or other, hath no relation to one of the twelve houses of heaven; and as the twelve signs are appropriate to the particular members of man's body, so also do the twelve houses represent, not only the several parts of man, but his actions, quality of life, and living. And the curiosity and judgment of our forefathers in astrology was such, that they have allotted to every house a particular signification; and so distinguished human accidents[11] throughout the whole twelve houses. He that understands the questions appertaining to each of them, shall not want sufficient grounds whereon to judge or give a rational answer upon any contingent accident, and success thereof.

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Of the FIRST *House, and its Signification*. [12]

The first house contains all that part of heaven from the line where the figure 1 stands unto the figure 2, where the second house begins: it is *one-third* of the distance between the horizon and meridian below the earth. It has signification of the *life* of man, of the stature, colour, complexion, form, and shape of him that propounds the question, or is born; in eclipses and great conjunctions, and upon the Sun his annual ingress into ♈; it signifies the common people, or general state of that kingdom where the figure is erected. And as it is the first house, it represents the head and face of man; so that if either ♄or ♂ be in this house, either at the time of a question or at the time of birth, you may observe some blemish in the face,[13] or in that member appropriated to the sign that is then upon the cusp of the house; as, if ♈be in the ascendant, the mark, mole, or scar is, without fail, in the head or face; and if few degrees of the sign ascend, the mark is in the upper part of the head; if the middle of the sign be on the cusp, the mole, mark, or scar is in the middle of the face, or near it; if the latter degrees ascend, the face is blemished near the chin, towards the neck; this I have found true in hundreds of examples. Of colours, it hath the white; that is, if a planet be in this house that has signification of white, the complexion of the party is more pale or wan; or, if you inquire after the colour of the clothes of any man, if his significator be in the first house, and in a sign corresponding, the party's apparel is white or grey, or somewhat near that colour: so also if the question be regarding cattle, when their significators are found in this house, it denotes them to be of that colour, or near it: the house is masculine. The consignificators of this house are ♈and ♄: for as this house is the first house, so is ♈the first sign, and ♄the first of the planets; and therefore, when ♄is but moderately well fortified in this house, and in any benevolent aspect of ♃, ☌, ☉, or ☽, it promises a good sober constitution of body, and usually long life; ☿doth also joy in this house, because it represents the head, and he the tongue, fancy, and memory; when he is well

dignified and posited in this house, he produces good orators;[14] it is called the Ascendant, because when the ☉and planets come to the cusp of this house, they ascend, or then arise, and are visible in our horizon.

Questions concerning the SECOND *House*.

From this house is required judgment concerning the estate or fortune of him that asks the question, of his wealth of property, of all moveable goods, money lent, of profit or gain, loss or damage; in suits of law, it signifies a man's friends or assistants; in private duels, the querent's second; in an eclipse or great conjunction, the poverty or wealth of the people: in the Sun his entrance into ♈, it represents the ammunition, allies, and support the commonwealth shall have; it imports their magazines. It represents, in man, the neck and hinder part of it towards the shoulders; of colours, the green. It is a feminine house, and succeedent.

It has consignificators, ♃and ♉; for if ♃be placed in this house, or be lord hereof, it is an argument of an estate or fortune; ☉and ♂ are never well placed in this house: either of them shew dispersion of substance, according to the capacity and quality of him that is either born or asks the question[15].

The THIRD *House*

Has signification of brethren, sisters, cousins, or kindred, neighbours, small journeys, or inland journeys, often removing from one place to another; epistles, letters, rumours, messengers: it rules the shoulders, arms, hands, and fingers. Of colours, it governs the red and yellow, or sorrel colour; it has consignificators, ♊and ♂, which is one reason why ♂ in this house, unless joined with ♄, is not very unfortunate it is a cadent house, and is the joy of the ☽; for if she be posited therein, especially in a moveable sign, it is an argument of much travel, trotting, and trudging, or of being seldom quiet: the house is masculine.

The FOURTH *House*

Gives judgment of fathers in general, or ever of his father that inquires, or that is born; of lands, houses, tenements, inheritance, tillage of the earth, treasures hidden; the determination or *end* of any thing; towns, cities, or castles besieged or not besieged; all ancient dwellings, gardens, fields, pastures, orchards the quality and nature of the grounds one purchases, whether vineyards, cornfields, &c., and shews whether the ground be woody, stony, or barren.

The sign of the fourth denotes the town, the lord thereof, the governor;[16] it rules the breast and lungs; and of colours, the red: its consignificators are ♋, and the ☉: we call it the angle of the Earth, or *Imum Cœli*: it is feminine, and the north angle. In nativities or questions this fourth house represents fathers; so does the ☉by day, and ♄by night; yet if the ☉be here placed, he is not ill, but rather shows the father to be of a noble disposition, &c.

The FIFTH *House*.

By this house we judge of children, of ambassadors, of the state of a woman with child, of banquets, of ale-houses, taverns, plays, messengers or agents for republics, of the wealth of the father, the ammunition of a town besieged; if the woman with child shall bring forth male or female; of the health or sickness of his son or daughter that asks the question. It rules the stomach, liver, heart, sides, and back, and is masculine. Of colours, black and white, or honey colour; and is a succeedent house; its consignificators are ♌and ☌, who does joy in this house, in regard it is the house of pleasure, delight and merriment; it is wholly unfortunate by ♂ or ♄, and they therein shew disobedient children, and untoward.

The SIXTH *House*.

It concerns men and maid servants, galley slaves, hogs, sheep, goats, hares, conies, all manner of lesser cattle, and profit or loss got thereby; *sickness*, its quality and cause; the principal humour offending, curable or not curable; whether the disease be short or long; day-labourers, tenants, farmers. shepherds, hogherds, neatherds, warreners, and it signifies uncles, or the father's brothers and sisters. It rules the inferior part of the belly and intestines, even to the rectum. The house is a feminine and cadent house, unfortunate as having no aspect to the ascendant. Of colours, *black*; ♂ rejoices in this house, but its consignificators are the sign ♍ and planet ☿: we usually find that ♂ and ☿ in conjunction in this house are arguments of a good physician.[17]

The SEVENTH *House*.

It gives judgment of marriage; and describes the person inquired after, whether it be a man or woman; all manner of love questions; or public enemies, the defendant in a lawsuit, in war, the opposing party; all quarrels, duels, lawsuits; it astrology, the artist himself; in physic, the physician; thieves and thefts, the person stealing, whether man or woman; wives, sweethearts, their shape, description, condition, nobly or ignobly born; in an annual ingress, whether war or peace may be expected; of victory, who overcomes and who is worsted fugitives or runaways, banished or outlawed men. It has consignificators ♎ and ☽; ♄or ♂ unfortunate herein, shew ill in marriage.[18] Of colour, a dark black. It rules the haunches, and the navel, to the buttocks, is called the angle of the west, and is masculine.

The EIGHTH *House*.

The estate of men deceased; death, its quality and nature; the wills, legacies, and testaments of men deceased; dowry of the wife, portion of the maid, whether much or little, easy to be obtained or with difficulty. In duels, it represents the adversary's second; in lawsuits, the defendant's friends; what kind of death a man shall die; it signifies fear

and anguish of mind;[19] also who shall be heir to the deceased. It rules the privy parts. Of colours, the green and black. Of signs, it has ♏for consignificator and ♄. The hemorrhoids, the stone, stranguary, and bladder, are ruled by this house, also poisons; it is a succeedent house, and feminine.

The NINTH *House*.

By this house we give judgment of voyages or long journies beyond seas, of religious men, or clergy of any kind, whether bishops or inferior ministers; dreams, visions, foreign countries, books, learning, church livings or benefices, and of the kindred of one's wife or husband. Of colours, it has the green and white; of man's body, it rules the fundament, the hips, and thighs; ♃and ♂ are consignificators of this house; for if ♃be herein placed, it naturally signifies a devout man in his religion, or one modestly given. I have often observed when the Dragon's tail, ♄, or ♂ have been unfortunately placed in this house, the querent has either been little better than an atheist or a desperate sectarian.[20] ☉rejoices to be in this house, which is masculine and cadent.

The TENTH *House*.

Commonly it personates kings, princes, dukes, earls, judges, prime officers, commanders-in-chief, whether in armies or towns; all sorts of magistracy and officers in authority, also mothers; honour, preferment, dignity, office, lawyers, professions or trade; it also signifies kingdoms, empires, dukedoms, counties; it has of colours red or white, and rules the knees and thighs. It is called the *medium cœli*, or midheaven, and is feminine. Its consignificators are ♑and ♂. Either ♃or the ☉are very fortunate in this house, especially when they are placed together; ♄or ♉usually deny honour as to persons of quality, and to the vulgar little prosperity in profession or trade.

The ELEVENTH *House*.

It does naturally represent friends and friendship, hope, trust, confidence, the praise or dispraise of any one; the fidelity or falseness of friends. As to kings, it personates their favourites, counsellors, servants, their associates or allies; their money, exchequer or treasure; in war, ammunition and soldiery, it represents courtiers, &c. In a commonwealth, governed by a few of the nobles and commons, it personates their assistance in council; as, in London, the tenth house represents the lord mayor; the eleventh, the common council, the ascendant the generality of the commoners of the said city. Of members, it rules the legs to the ancles; of colours, saffron or yellow. It has ☉and ♒for consignificators: ♃especially rejoices in this house. It is a succeedent house, and masculine, and in virtue is nearly equivalent either to the seventh or fourth house.

The TWELFTH *House*.

It has signification of private enemies, great cattle, or horses, oxen, elephants, &c.; sorrow, tribulation, imprisonment, all manner of affliction, self-undoing, &c.; and of such men as maliciously undermine their neighbours, or inform secretly against them. It has consignificators ♓and ♇. Saturn does much delight in that house, for he is naturally the author of mischief. It rules, in man's body, the feet. In colour it represents the green. It is a cadent house, and feminine.

This is the true character of the several houses, according to the Ptolomeian doctrine, and the experience I have had myself for many years. I must confess the Arabians have made several other divisions of the houses; but I could never, in my practice, find any verity in them; therefore I will say nothing of them.

Chapter 5. Of Saturn, And His Signification

Hs is the supremest or highest of all the planets,[21] and is placed between Jupiter and the firmament; he is not very bright or glorious, nor does he twinkle or sparkle, but is of

a pale or wan ashy colour; slow in motion, finishing his course through the twelve signs of the zodiac in 29 years, 167 days, and 5 hours, or thereabouts. His mean motion is two minutes and one second; his diurnal motion sometimes is three, four, five, or six minutes, seldom more; his greatest north latitude from the ecliptic is 2 degrees 48 minutes; his greatest south latitude is 2 degrees 49 minutes.

In the zodiac he has two of the twelve signs for his houses; viz. Capricorn ♑, his night house; Aquarius ♒, his day house. He is exalted in ♎, receives his fall in ♈, and rejoices in the sign Aquarius, ♒. He governs the airy triplicity by day, which is composed of ♊, ♎, ♒.

If in any question he be in any degree wherein he has a term, he cannot be said to be peregrine, or void of essential dignities; or if he be in any of those degrees allotted him for his face or decanate, he cannot then be said to be peregrine: understand this in all the other planets.[22]

He continues retrograde 140 days; is five days in his first stage before retrogradation, and so many in his second station before becoming direct. He is cold and dry (being far removed from the Sun); melancholy, earthy, masculine; and the greater infortune, author of solitariness, malevolent, &c.

When well dignified, he is profound in imagination, in his acts severe, in words reserved, in speaking and giving very spare; in labour patient, in arguing or disputing grave, in obtaining the goods of this life studious and solicitous, in all manner of actions austere.[23]

When ill dignified, he is envious, covetous, jealous, and mistrustful; timorous, sordid, outwardly dissembling, sluggish, auspicious, stubborn; a contemner of women, a liar, malicious, murmuring; never contented, and ever repining.

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Corporature.--Most part of his body cold and dry; of a middle stature, his complexion pale, swarthy or muddy; his eyes little and black, looking downward; a broad forehead, black or sad hair, and it hard or rugged; great ears, hanging, lowering eyebrows, thick lips and nose; a rare or thin beard, a lumpish, unpleasant countenance, either holding his head forward or stooping; his shoulders broad and large, and many times crooked; his belly somewhat short and lank; his thighs spare, lean, and not long; his knees and feet ill made; and frequently striking against each other, with a shuffling gait.

Saturn *Oriental*.--You must observe, if Saturn be oriental of the Sun, the stature is more short, but decent and well composed.

Saturn *Occidental*.--The man is more black and lean, and fewer hairs; and again, if he wants latitude, the body is more lean; if he have great latitude, the body is more fat or fleshy; if the latitude be south, more fleshy, but quick in motion. If north, hairy and much flesh.

♄in his first station, a little fat; in his second station, fat, ill-favoured bodies, and weak; and this observe constantly in all the other planets.

Quality of Men.--In general ♄signifies husbandmen, clowns, beggars, day labourers, old men, fathers, grandfather, monks, jesuits, sectarians.

Employment.--Curriers, night-farmers, miners under ground, tinners, potters, broom men, plumbers, brickmakers, maltsters, chimney-sweepers, sextons of churches, bearers of corpses, scavengers, hostlers, colliers, carters, gardeners, ditchers, chandlers, dyers of black cloth, and herdsmen, shepherds, or cow-keepers.

Sicknesses.--All impediments in the right ear, or teeth; all quartan agues proceeding from cold, dry and melancholy distempers, leprosies, consumptions, black jaundice, palsies, tremblings, vain fears, fantasies, dropsy, the hand and foot gout, apoplexies, too

much flux of the hemorrhoids; and*ruptures*, if in Scorpio or Leo, in any ill aspect with Venus.

Orb.--His orb is nine degrees before and after; that is, his influence begins to work when either he applies or any planet applies to him, and is within the half of nine degrees added to the half of that planet's orb, and continues in force until he is separate an equal distance.

Years.--The greatest years he signifies is 465. His greater 57; his medium years 43½; his least 30. The meaning whereof is this: admit we frame a new building, erect a town or city, or a family, or principality is begun when Saturn is essentially and occidentally strong, the astrologer may probably conjecture the family, principality, &c. may continue 465 years in honour, &c. without any sensible alteration. As to age, he relates to decrepit old men, fathers, grandfathers; the like in plants, trees, and all living creatures.

Places.--He delights in deserts, woods, obscure vanes, caves, dens, holes, mountains, or where men have been buried, churchyards, &c.; ruinous buildings, coal-mines, sinks, dirty and stinking places, houses of office, &c.

Countries.--Late authors say he rules over Bavaria, Saxony, Stiria, Romandiola, Ravenna. Constantia, Ingoldstadt.

Chapter 6. Of The Planet Jupiter, And His Signification

JUPITER is placed next to Saturn. He is the greatest in appearance to our eyes, of all the planets (the ☉, ☽, and ♃ excepted): in his colour he is bright, clear, and of an azure hue. In his motion he exceeds Saturn, finishing his course through the twelve signs, in 14 years, 314 days, and 12 hours; his middle motion is 4 minutes 52 seconds. His greatest north latitude is 1° 38′. His greatest south latitude is 1° 40′. He is retrograde about 120

days, is five days in his first station before retrogradation, and four days stationary before direction.

Nature.--He is a masculine planet, temperately hot and moist, and the *greater fortune*; author of temperance, modesty, sobriety, justice.

Manners and Actions when well placed.--Then he is magnanimous, faithful, bashful, aspiring in an honourable way at high matters; in all his actions a lover of fair dealing, desiring to benefit all men; doing glorious actions; honourable and religious, of sweet and affable conversation, wonderfully indulgent to his wife and children, reverencing aged men, a great reliever of the poor, full of charity and godliness; liberal, hating all sordid actions; just, wise, prudent, grateful and virtuous; so that when you find ♃the significator of any man in question, and well dignified, you may judge him well qualified as aforesaid.

When ill dignified.--When ♃is unfortunate, then he wastes his patrimony, suffers every one to cozen him, is hypocritically religious, tenacious, and obstinate in maintaining false tenets in religion; he is ignorant, careless, nothing caring for the love of his friends; of a gross. dull capacity; systematical, abasing himself in all companies, insinuating and stooping where no necessity is.

Corporature.--He signifies an upright, straight, and tall stature; brown, ruddy, and lovely complexion; of an oval or long visage, and full or fleshy; high forehead; large grey eyes; hair soft, and a kind of auburn brown; much beard; a large deep belly; strong proportioned thighs and legs, his feet long, being the most uncomely parts of his body; in his speech he is sober, and of grave discourse.

Oriental.--The skin more clear, his complexion honey colour, or between a white and red, sanguine, ruddy colour; great eyes, the body more fleshy; generally some mole or scar on the right foot.

Occidental.--A pure and lovely complexion, the stature more short, the hair a light brown, or near a dark flaxen, and smooth; bald about the temple or forehead.

Quality in general.--He signifies judges, senators, counsellors, ecclesiastical men, bishops, priests, ministers, cardinals, chancellors, doctors of the civil law, young scholars and students in an university or college, lawyers, clothiers, woollen drapers.

Diseases.--Pleurisies, all infirmities in the liver, apoplexies, inflammation of the lungs, palpitation and trembling of the heart, cramps, pain in the back bone, all diseases lying in the veins or ribs, and proceeding from corruption of blood; quinzies, flatulence; all putrefaction in the blood, or fevers proceeding from too great abundance thereof.

Places.--He delights in being near altars of churches, in public conventions, synods, convocations; in places neat and sweet; in wardrobes, courts of justice, and oratories.[24] His greatest years are 428; his greater, 79; his mean, 45; least, 12.

Men of middle age, or of a full judgment and discretion, are described by him. Babylon, Persia, Hungaria, Spain, Cullen, are ruled by him.[25]

Chapter 7. Of The Planet Mars, And His Several Significations

MARS does in order succeed Jupiter, is less in body, and appears to our sight of a shining, fiery, sparkling colour: he finishes his course in the zodiac in 1 year, 321 days, and 22 hours: his greatest latitude north is about 4° 31′; his south, 6° 47′; and is retrograde 80 days; stationary two or three. He governs wholly the watery triplicity, viz. ♋, ♏, and ♓.

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Nature.--He is a masculine, nocturnal planet, in nature hot and dry, choleric and fiery; the lesser infortune, author of quarrels, strifes, and contentions.

Manners when well dignified.--In feats of war and courage invincible, scorning that any should exceed him; subject to no reason, bold, confident, immoveable, contentious, challenging all honour to themselves; valiant, lovers of war and things pertaining thereto, hazarding himself in all perils, unwilling to obey or submit to anybody; a boaster of his own acts; one that slights all things in comparison of victory, and yet of prudent behaviour in his own affairs.

When ill dignified.--Then he is a prattler, without modesty or honesty; a lover of slaughter and quarrels, murder, thievery, a promoter of sedition, frays, and commotions; an highway thief, as wavering as the wind, a traitor, of turbulent spirit, perjured, obscene, rash, inhuman, neither fearing God nor caring for man; unthankful, treacherous; oppressors, ravenous, cheaters, furious, and violent.[26]

Corporature.--Generally martialists have this form; they are but of middle stature, their bodies strong, and their bones large, rather lean than fat; their complexion of a brown, ruddy colour, their visage round, their hair red or sandy, and many times crisping or curling; sharp, hazel, piercing eyes; a bold confident countenance; and they are active and fearless.

Oriental.--He signifies valiant men; some white mixed with their redness, inclined to be tall, and of a hairy body.

Occidental.--Very ruddy complexion, but low stature, little head, smooth body, and not hairy; yellow hair, stiff, and the natural humours generally more dry.

Qualities of Men and their Professions.--Generals of armies, colonels, captains, or any soldiers having command in armies; all manner of soldiers, physicians, apothecaries,

surgeons, chemists, gunners, butchers, marshals, sergeants, bailiffs, hangmen, thieves, smiths, bakers, armourers, watchmakers, tailors, cutlers of swords and knives, barbers, dyers, cooks, carpenters, gamesters, bear-wards, tanners, and curriers, according as ♂ may be strong or weak.

Diseases.--The gall, tertian fevers, pestilent burning fevers, meagrims in the head,, carbuncles, the plague, and all plague sores, burnings, ringworms, blisters, phrensies, mad sudden distempers in the head, yellow jaundice, bloody flux, fistulas; all wounds and diseases in men's genitals, the stone both in the reins and bladder, scars or smallpox in the face.[27]

Mars causes all hurts by iron, the shingles, and such other diseases as arise by too much choler, anger, or passion.

Places.--Smiths' shops, furnaces, slaughter-houses, places where bricks or charcoal are burned, or have been burned; chimneys, and forges.[28]

His orb is only seven degrees.

Years.--In man he governs the flourishing time of youth, and from 41 to 56; his greatest year is 264; greater 66, lower 40, and least 15.

Countries.--Saromatia, Lombardy, Batavia, Ferraria, Gothland.

Chapter 8. Of The Sun, His General And Particular Significations

THE Sun is placed in the middle of all the planets, continually visible to all mortal men. He passes through all the twelve signs of the zodiac in one year: his mean motion is 59 minutes 8 seconds, yet his diurnal motion is sometimes 57 minutes 16 seconds,

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sometimes more, but never exceeding 61 minutes and 6 seconds. He always moves in the ecliptic, and is ever void of latitude. He has only the sign ♌for his house, and ♒for his detriment. He is exalted in the 19th degree of ♈, and receives his fall in 19° ♎.

The Sun governs the fiery triplicity, viz. ♈, ♌, ♐, by day. He is always direct, and never can be considered retrograde.

In nature.--He is naturally hot and dry, but more temperate than ♂; is a masculine, diurnal planet, and equivalent if well dignified to a fortune.

Manners when well dignified.--Very faithful, keeping their promises with the greatest punctuality; a kind of itching desire to rule and sway wherever he comes. Prudent, and of incomparable judgment; of great majesty and stateliness, industrious to acquire honour and a large patrimony, yet as willing to spend it again. The solar man usually speaks with gravity, but not many words, and these with great confidence and command of his own feelings; full of thought, secret, trusty, speaks deliberately, and, notwithstanding his great heart, he is affable, tractable, and very humane to all people; one loving sumptuousness and magnificence, and whatever is honourable; no sordid thoughts can enter his heart.

When ill dignified.--Then the solar man is arrogant and proud, disdaining all men, boasting of his pedigree; he is purblind in sight and judgment, restless, troublesome, domineering, a mere vapour, expensive, foolish, endowed with no gravity in words, or soberness. in actions; a spendthrift, wasting his patrimony, and hanging on other men's charity; yet he thinks all men are bound to him, because a gentleman born.

Corporature.--Usually the ☉presents a man of a good, large, and strong corporature, a yellow, saffron complexion, a round large forehead, large goggle eyes, sharp and piercing; a body strong and well composed, not so beautiful as lovely; full of heat, with hair yellowish, and therefore quickly bald; much hair on their beard, and usually an high

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ruddy complexion; their bodies fleshy; in disposition they are very bountiful, honest, sincere, well-minded, of good heart; healthful constitution; very humane, yet sufficiently spirited, and not loquacious.

Oriental.--We can only say the ⊙is oriental in the figure, or in an oriental quarter of the figure, or occidental, &c.[29] The planets are oriental when they rise, or appear before him in the morning, and occidental when they set after him.

Quality of Men, and their Professions.--He signifies, kings, princes, emperors, &c. dukes, marquisses, earls, barons, lieu-tenants, deputy lieutenants of counties, magistrates, gentle-men in general, courtiers, desirers of honour and preferment. Justices of peace, mayors, high sheriffs, high constables, stewards of noblemen's houses, the principal magistrate of any city, town, castle, or country village; yea, even a petty constable, where no better is; goldsmiths, braziers, pewterers, coppersmiths, and minters of money.

Sicknesses.--Pimples in the face, palpitation or trembling, diseases of the brain and heart, infirmities of the eyes, cramps, sudden swoonings, diseases of the mouth and impure breath, catarrhs, putrid fevers. Principally in man he governs the heart and the brain; in women, the vital spirit, and denotes hysterics.

Places.--Houses or courts of princes, palaces, theatres, all magnificent structures, being clean and decent; halls, and dining rooms.

Orb.--Is 15 degrees.

Years.--In age he rules youth, or when one is at the strongest; his greatest years are 1460, [30] greater 120, lesser 69 and least 19.

Countries.--Italy, Sicily, Bohemia, Phenicia, and Chaldea.

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Chapter 9. Of The Planet Venus, And Her Several Signification And Nature

Name.--After the Sun succeedeth Venus.

Colour in the Element.--She is of a bright, shining colour, and is well known by the name of the evening star, or Hesperus; and that is when she appears after the Sun is set; she is commonly called the morning star, but by the learned Lucifer, when she is seen long before the rising of the Sun. Her mean motion is 59 minutes and 8 seconds; her diurnal motion is sometimes 62 minutes a-day, and 82 minutes she never exceeds. Her greatest latitude is 9° 2′. She is retrograde 42 days, and stationary 2. Her year is 224 days and 7 hours.

Element.--She is a feminine planet, temperately cold and moist; nocturnal, the lesser fortune, author of mirth and cheerfulness.

Manners and Quality when well dignified.--She signifies a quiet man, not given to law, quarrel, or wrangling; not vicious; pleasant, neat and spruce, loving mirth in his words and actions, cleanly in apparel, rather drinking much than gluttonous; prone to venery, often entangled in love matters, zealous in their affections, musical, delighting in baths and all honest merry meetings, or amusements and theatricals; easy of belief, and not given to labour, or take any pains; a company keeper, cheerful, nothing mistrustful, a right virtuous man or woman, often jealous, yet without cause.

When ill dignified. Then he is riotous, expensive, wholly given to dissipation and lewd companies of women, nothing regarding his reputation, coveting unlawful beds, incestuous, an adulterer, fantastical, a mere skip-jack, of no faith, no repute, no credit, spending his means in ale-houses, taverns, and among scandalous loose people; a mere lazy companion, nothing careful of the things of this life, or any thing religious.

Corporature.--A man of fair but not tall stature, his complexion being white, tending to a little darkness[31] which makes him more lovely, very fair, lovely eyes, and sometimes black; a round face and not large, fair hair, smooth and plenty of it, and it is usually of a light brown colour; a lovely mouth and cherry lips, the face pretty fleshy, a rolling wandering eye, a body very delightful, lovely, and exceedingly well shaped; one desirous of trimming and making himself neat and complete both in clothes and body, a love dimple in his cheeks,[32] a stedfast eye, and full of amorous enticements.

Oriental.--When oriental, the body inclines to tallness or a kind of upright straightness in person; not corpulent or very tall, but neatly composed; a right Venus person is a pretty, complete, handsome man or woman.

Occidental.--When she is occidental, the man is more short in stature, yet very decent and comely in shape and form, well liked of all.

Quality of Persons, and Employments.--Musicians, gamesters, silkmen, mercers, linen-drapers, painters, jewellers, players, lapidaries, embroiderers, woman-tailors, wives, mothers, virgins, choristers, fiddlers, pipers: when joined with the y; ballad-singers, perfumers, seamstresses, picture-drawers, engravers, upholsterers, limners, glovers, and such as sell those commodities which adorn women, either in body (as clothes) or in face (as complexion waters).

Sicknesses.--Diseases by her signified are principally in the matrix and members of generation; in the reins, belly, back, navel, and those parts; the gonorrhœa or running of the reins, lues venerea or any disease arising from inordinate lust, priapism, impotency in generation, hernias, &c., the diabetes, or an involuntary discharge of urine.

Orb.--Her orb is 7 degrees.

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Years.--Her greatest years are 151; her greater 82, her mean 45, her least 8. In man she governs youth from 14 to 28.

Countries.--Arabia, Austria, Campania, Vienna, Polonia the Greater, Turin, Parthia, Media, Cyprus.[33]

Chapter 10. Of Mercury, And His Signification, Nature, And Property

MERCURY is the least of all the planets, never distant from the Sun above 28 degrees; by which reason he is seldom visible to our sight.

Colour and Motion.--He is of a dusky silver colour; his mean motion is 59 minutes and 8 seconds, but he is sometimes so swift, that he moves above 1 degree and 40 minutes in one day. He is stationary one day, retrograde twenty-four days. His year is 87 days and 23 hours.

Latitude.--His greatest south latitude is 3 degrees 35 minutes, greatest north latitude 3 degrees 33 minutes.

Nature.--We may not call him either masculine or feminine, for he is either the one or the other as joined to any planet; for if in ☿with a masculine planet, he becomes masculine:[34] if with a feminine, then feminine; but of his own nature he is cold and dry, and therefore melancholy: with the good he is good, with the evil planets, ill; he is author of subtlety, tricks, devices, perjury, &c.

Manners when well dignified.--Being well dignified, he represents a man of a subtle and political brain and intellect, an excellent disputant or logician, arguing with learning and discretion, and using much eloquence in his speech; a searcher into all kinds of

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mysteries and learning, sharp and witty, learning almost any thing without a teacher; ambitious of being exquisite in every science, desirous naturally to travel and see foreign parts; a man of an unwearied fancy, curious in the search of any occult knowledge, able by his own genius to produce wonders, given to divination and the more secret knowledge. If he turn merchant, no man exceeds him in way of trade, or invention of new ways whereby to obtain wealth.

Manners when ill dignified.--A troublesome wit, a kind of phrenetic man, his tongue and pen against every man; wholly bent to fool his estate and time in loquacity and trying nice conclusions to no purpose, a great liar, boaster, prattler, busybody; false; a tale-carrier, addicted to wicked arts, as necromancy, and such like ungodly knowledges; easy of belief, an ass or very idiot, constant in no place or opinion, cheating and thieving everywhere; a newsmonger, pretending all manner of knowledge, but void of true or solid learning; a trifler, a mere frantic fellow; if he prove a divine, then a mere verbal fellow, frothy, of no judgment, easily perverted, constant in nothing but idle words and bragging.

Corporature.--Generally he denotes one of an high stature, and straight, thin, spare body; a high forehead, and somewhat narrow long face, long nose, fair eyes, neither perfectly black nor grey, thin lips and nose, little hair on the chin, but much on his head, and of a sad brown inclining to blackness; long arms, fingers, and hands; his complexion like an olive or chesnut colour. You must observe ☿more than all the planets; for having any aspect to a planet, he partakes more of the influence of that planet than any other does; if with ♄, then heavy; with ♃, more temperate; with ♂, more rash; with ☉, more genteel; with ♀, more jesting; with ☽, more changeable.

Oriental.--When he is oriental, his complexion is honey-colour, or like one sunburnt; in the stature of his body not very high, but well jointed; small eyes, not much hair; in very

truth, according to the height of body, very well composed, but still a defect in the complexion, swarthy brown, and in the tongue all for his own interest.

Occidental.--When occidental, a tawny visage, lank body, small slender limbs, hollow eyes, either sparkling, red or fiery; the whole frame of body inclining to dryness.

Quality of Men and Professions.--He generally signifies all literary men, philosophers, mathematicians, astrologians,[35] merchants, secretaries, writers, sculptors, poets, orators, advocates, schoolmasters, stationers, printers, exchangers of money, attorneys, ambassadors, commissioners, clerks, artificers, generally accomptants, solicitors; sometimes thieves, prattling ministers, busy secretaries, and they unlearned; grammarians, tailors, carriers, messengers, footmen, usurers.

Sickness.--All vertigos, lethargies, or giddiness in the head; madness, either lightness or any disease of the brain; phthisic; all stammering and imperfection in the tongue, vain and fond imaginations, all defects in the memory, hoarseness, dry coughs, too great abundance of spittle, all snaffling and snuffling in the head or nose; the hand and feet gout, dumbness, foul or diseased tongue; all evils in the fancy and intellectual parts.

Orb.--His orb is 7 degrees.

Years.--His greatest years are 450, his greater 76, his mean 48, his little or least 20.

Countries.--He has Grecia, Flanders, Egypt. Of towns, Paris.

Chapter 11. Of The Moon, Her Properties And Significations

Name.--The Moon we find called by the ancients Lucina, Cynthia, Diana, Phœbe, Latona, Noctiluca, Proserpina;[36] she is nearest to the earth of all the planets.

Motion.--She terminates her course through the whole twelve signs in 27 days, 7 hours, 43 minutes, 5 seconds; her mean motion is 13 degrees, 10 minutes, and 36 seconds; but she moves sometimes less and sometimes more, never exceeding 15 degrees and 12 minutes in 24 hours' time.

Latitude.--Her greatest north latitude is 5 degrees and 17 minutes. Her greatest south latitude 5 degrees and 12 minutes. She is never retrograde; but when she is slow in motion, and goes less in 24 hours than 13 degrees and 11 minutes; she is then equivalent to a retrograde planet.

Nature.--She is a feminine, nocturnal planet; cold, moist, and phlegmatic.

Manners when well placed or dignified.--She signifies one of composed manners, a soft tender creature, a lover of all honest and ingenious sciences, a searcher of and delighter in novelties, naturally inclined to flit and shift his habitation; unsteadfast, wholly caring for the present times; timorous prodigal, and easily frightened; loving peace, however, and to live free from the cares of this life. If a mechanic, the man learns many occupations, and frequently will be tampering with many ways to trade in.

When ill.--A mere vagabond, idle person, hating labour; a drunkard, a sot, one of no spirit or forecast, delighting to live beggarly and carelessly; one content in no condition of life, either good or ill.

Corporature.--She generally presents a man of fair stature, whitely coloured; the face round, grey eyes, and a little lowering; much hair both on the head, face, and other parts; usually one eye a little larger than the other; short hands and fleshy; the whole body inclining to be fleshy, plump, corpulent, and phlegmatic. If she be impedited of the ☉in a nativity or question, she usually signifies some blemish in or near the eye; a blemish near the eye, if she be impedited in succeedent houses; in the sight, if she be unfortunate in angles, and with fixed stars called nebulae.

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Qualities of Men and Women.--She signifies queens, countesses, ladies, all manner of women, as also the common people, travellers, pilgrims, sailors, fishermen, fishmongers, brewers, tapsters, publicans, letter carriers, coachmen, huntsmen, messengers, mariners, millers, maltsters, drunkards, oysterwives, fishwomen, charwomen, tripewomen, and generally such women as carry commodities in the streets; as also midwives, nurses, &c.; hackneymen, watermen, water-bearers.[37]

Sickness.--Apoplexies, palsy, the cholic, the stomach-ache, diseases in the left side, the bladder and members of generation; the menstrues and liver in women, dropsies, fluxes of the belly, all cold rheumatic diseases, cold stomach, the gout in the wrists and feet; sciatica, worms, hurts in the eyes, surfeits, rotten coughs, convulsive fits, the falling sickness, king's evil, abscess, smallpox, and measles.

Orb.--Is 12 degrees.

Years.--Her greatest years are 320, greater 108, mean 66, least 25.

Countries.--Holland, Zealand, Denmark, Nuremberg, Flanders.

Chapter 12

The Head of the Dragon.--THE head of the Dragon is masculine, of the nature of ♃and ☌, and of himself a fortune.[38]

The Tail of the Dragon.--The Tail of the Dragon by nature is quite contrary to the Head, for he is evil. I ever found the ☊equivalent to either of the fortunes, and, when joined with the evil planets, to lessen their malevolent signification; when joined with the good, to increase the good promised by them. The Tail of the Dragon I always, in thy practice, found, when he was joined by the evil planets, their malice or the evil intended thereby was doubled and trebled, or extremely augmented, &c.; and when he chanced to be in

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conjunction with any of the fortunes who were significators in the question, though the matter by the principal significator was fairly promised and likely to be perfected in a small time, yet did there ever fall out many rubs and disturbances, much wrangling and controversy, that the business was many times given over for desperate before a perfect conclusion could be had; and unless the principal significators were angular, and well fortified with essential dignities, many times unexpectedly the whole matter came to nothing.

Chapter 13. Another Brief Description Of The Shapes And Forms Of The Planets

Herschel.--THIS is the most distant planet from the Sun; his motion is very slow, as he takes 83 years 151 days to go through the twelve signs. The nature of ♅is extremely evil. If he ascend or be with the chief significator in any figure, he denotes an eccentric person, far from fortunate, always abrupt, and often violent in his manners. If well aspected, he gives sudden and unexpected benefits; and if afflicted, he will cause remarkable and unlooked-for losses and misfortunes. He is not so powerful as Saturn or Mars, yet can do much evil. Persons under his influence are partial to antiquity, astrology, &c., and all uncommon studies, especially if Mercury and the Moon be in aspect to him. They are likely to strike out novelties, and to be remarkable for an inventive faculty. They are generally unfortunate in marriage, especially if he afflict ☌, the ☽, or the seventh house, either it nativities or questions.

Saturn--Signifies one of a swarthy colour, palish like lead, or of a black earthly brown; one of rough skin, thick and very hairy on the body, small eyes; many times his complexion is between black and yellow, or as if he had an affection of the black or yellow jaundice; he is lean, crooked, or beetle-browed; a thin weak beard; great lips, like

negroes; he looks to the ground,[39] is slow in motion, either is bow-legged or hits one leg or knee against another; most part a disagreeable breath, seldom free from a cough; he is crafty for his own interest, seducing people to his opinion; full of revenge and malice, little caring for religion; is a foul, nasty, slovenly knave, or a harlot, a great eater and glutton, a brawling fellow; has broad, great shoulders; is covetous, and yet seldom rich, &c.[40]

Jupiter.--We must describe ♃and a jovialist to be one of a comely stature, full-faced, full-eyed, a sanguine complexion, or mixture of white and red; a large space between his eye-brows; usually his beard is of a flaxen or sandy-flaxen colour; sometimes also, when ♃is combust, very sad or black; his hair thick, his eyes not black; good broad, well-set teeth, but usually some mark of difference in the two fore teeth, either by their standing awry, or some blackness or imperfection in them; his hair gently curls (if he be in a fiery sign); a man well spoken, religious, or at least a good moral honest man; a person comely, and somewhat fat (if ♃be in moist signs), fleshy; if in airy signs, large and strong; if in earthly signs, a man usually well descended; but if he be significator, if an ordinary clown, as sometimes he may be, then is he of more humanity than usual in such kind of men.

Mars.--A martial man is many times full-faced, with a lively, high colour, like sun-burnt, or like raw tanned leather; a fierce countenance, his eyes being sparkling or sharp and darting, and of yellow colour; his hair, both of head and beard, being reddish (but herein you must vary according to the sign). In fiery signs, and airy, where ♂ falls to be with fixed stars of his own nature, there shews a deep sandy red colour; but in watery signs, being with fixed stars of his own nature, he is of a flaxen or whitish bright hair; if in earthy signs, the hair is like a sad brown, or of a chesnut colour. He has a mark or scar on his face; is broad-shouldered, a sturdy, strong body, being bold and proud, given to mockery and scorn, to quarrel, drink, game, and wench; which you may easily know by

the sign he is in: if in the house of ♀, he wenches; in that of ☿, he steals; but if he be in his own house, he quarrels; in that of ♄, is dogged; in the ☉'s, is lordly; in the ☽'s, is a drunkard.

The Sun.--The Sun generally denotes one of an obscure white colour, mixed with red; a round face, and short chin, a fair stature, and one of a comely body; his colour sometimes between yellow and black, but for the most part more sanguine than otherwise; a bold man, and resolute; his hair curling; he has a white and tender skin; one desirous of praise, fame, and estimation among men; he has a clear voice, and great head; his teeth somewhat distorted or obliquely set; of slow speech, but of a composed judgment; using outwardly a great decorum in his actions, but privately he is lascivious and prone to many vices.

Venus.--Whoever is signified by Venus, whether man or woman, has a good and fair round visage, a full eye, usually we say goggle-eyed: red ruddy lips, the nether more thick or longer than the-upper; the eyelids black, yet lovely and graceful; the hair of lovely colour, (but most part according to the sign as before repeated); in some it is coal black, in others a light brown; a soft smooth hair; and the body extremely well shaped, even rather inclining to shortness than tallness.[41]

Mercury.--We describe Mercury to be a man neither black nor white, but between both, of a sad brown or dark yellow colour; long visaged, high forehead, black or grey eyes, a thin, long, sharp nose; thin spare beard, (many times none at all) of an auburn sad colour, next to black; slender of body, small legs; a prattling, busy fellow; and in walking he goes nimbly, and always would be thought to be full of action.

The Moon.--She, by reason of her swiftness, varies her shape very often, but, in general, she personates one having a round visage and full face, in whose complexion you may perceive a mixture of white and red, but paleness overcomes: if she be in fiery signs, the

man or woman speaks hastily; in watery signs, he or she has some freckles in his or her face, or is blub-cheeked, not a handsome body, but a muddling creature; and unless very well dignified, she ever signifies an ordinary vulgar person.[42]

Chapter 14. The Colours Of The Planets And Signs

♄Gives black colour; ♃a colour mixed with red and green; ♂ red, or iron colour; ☉yellow or yellow purple; ♀ white or purple colour; ☿sky colour, or blueish: ☽a colour spotted with white, and other mixed colours.

♈White mixed with red; ♉white mixed with lemon; ♊white mixed with red; ♋green or russet; ♌red or green; ♍black speckled with blue; ♎black or dark crimson, or tawny colour; ♏brown; ♐yellow, or a green sanguine; ♑black or russet, or a swarthy brown; ♒a sky colour with blue; ♓white, glistening colour.[43]

Chapter 15. The Nature, Place, Countries, General Description, And Diseases Signified By The Twelve Signs

ARIES

Is a masculine, diurnal sign, moveable, cardinal, equinoctial; in nature fiery, hot and dry, choleric, bestial, luxurious, in temperate, and violent; the diurnal house of ♂; of the fiery triplicity, and of the east.

Diseases.--All gumboils, swellings, pimples in the face, smallpox, hair lips, polypus, ringworms, falling sickness, apoplexies, megrims, tooth-ache, head-ache, and baldness.

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Places ♈ *signifies*.--Where sheep and cattle do feed, sandy or hilly grounds; a place of refuge for thieves, (as unfrequented places); in houses, the covering, ceiling, or plastering; a stable for small beasts; lands newly taken in or recently ploughed, or where bricks or lime has been burnt.

Description of the Body or Shape ♈ *represents*.--A dry body, not exceeding in height; lean or spare, but lusty bones, and his limbs strong; the visage long, black eye-brows, a long scraggy neck, thick shoulders; the complexion dusky, brown or swarthy.

Countries ruled by ♈.--England, Germany, Denmark, Lesser Poland, Palestine, Syria, Naples.--*Towns*: Florence, Verona, Padua, Marseilles, Burgundy, Saragossa, Bergamo.

TAURUS.

Qualities of the Sign ♉.--it is an earthy, cold, dry, melancholy, feminine, nocturnal, fixed, bestial sign; of the earthy triplicity, and south; the night house of Venus.

Diseases.--The king's evil, sore throats, wens, fluxes of rheums falling into the throat, quinzies, abscesses in those parts.

Places.--Stables where horses are, low houses, houses where the implements of cattle are laid up; pasture or feeding grounds, where no houses are near; plain grounds, or where bushes have lately been eradicated, and wherein wheat and corn are substituted; some little trees not far off; in houses, cellars, low rooms.

Shape and Description.--It represents one of a short, but full, strong and well-set stature; a broad forehead; great eyes, large swarthy face, and broad strong shoulders; great mouth, and thick lips; gross hands; black, rugged hair.

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Countries ruled by ♉.--Ireland, Persia, Great Poland, Asia Minor, the Archipelago, and the southern parts of Russia.--Towns: Dublin, Mantua, Leipsic, Parma, Franconia, Lorraine: also the islands of Cyprus and Samos, and the port and vicinity of Navarino.

GEMINI.

Quality and Property of ♊.--It is an aerial, hot, moist, sanguine, diurnal, common or double-bodied human sign; the diurnal house of ☿; of the airy triplicity, western, masculine.

Diseases.--It signifies all diseases, accidents, or infirmities in the arms, shoulders, or hands; corrupted blood, windiness in the veins, distempered fancies, and nervous diseases.

Places.--Wainscot of rooms, plaistering, and walls of houses; the halls, or where play is used; hills and mountains, barns, storehouses for corn, coffers, chests and high places.

Countries ruled by ♊.--North America, Lower Egypt, Lombardy, Sardinia, Brabant, Belgium, West of England.--*Towns*: London (especially ♊17° 54′), Versailles, Mentz, Bruges, Louvaine, Cordova, New York, and Nuremberg.

Description.--An upright, tall, straight body, either in man or woman; the complexion sanguine, not clear, but obscure and dark; long arms, yet many times the hands and feet short, and very fleshy; a dark hair,[44] almost black; a strong, active body, a good piercing hazel eye, and wanton, and of perfect and quick sight; of excellent understanding, and judicious in worldly affairs.

CANCER.

Quality and Property of ♋.--It is the only house of the Moon, and is the first sign of the watery triplicity; is a watery, cold, moist, phlegmatic, feminine, nocturnal, moveable sign; mute, and slow of voice; fruitful, northern.

Diseases.--It signifies imperfections all over, or in the breast, stomach, and paps; weak digestion, cold stomach, phthisic, salt phlegms, rotten coughs, dropsical humours, imposthumations in the stomach, cancers,[45] which are mostly in the breast.

Places.--The sea, great rivers, navigable rivers; but in in-land countries it denotes places near rivers, brooks, springs, wells, cellars in houses, wash-houses, marsh-grounds, ditches with rushes, sedges, sea banks, trenches, cisterns.

Shape and Description.--Generally a low and small stature, the upper parts larger than the lower; a round visage; sickly, pale, and white complexion; the hair a sad brown; little eyes; prone to have many children, if a woman.

Countries ruled by ♋.--Holland, Scotland, Zealand, Georgia, and all Africa.--Towns: Constantinople, Tunis, Algiers, Amsterdam, Cadiz, Venice, Genoa, York, St. Andrews, Manchester, New York, Bern, Lubeck, Milan, and Vicentia.

LEO.

Quality and Property of ♌.--It is the only house of the Sun; by nature, fiery, hot, dry, choleric; diurnal, commanding, bestial,[46] barren; of the east, and fiery triplicity; masculine.

Diseases.--All sicknesses in the ribs and sides, as pleurisies, convulsions, pains in the back, trembling or .passion of the heart, violent burning fevers; all weakness or diseases in the heart, sore eyes, the plague, the pestilence, the yellow jaundice.

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Places.--A place where wild beasts frequent; woods, forests, desert, steep, rocky, and inaccessible places; king's palaces, castles, forts, parks; in houses where fire is kept, near a chimney.

Shape and Form.--Great round head; large prominent eyes, as if staring out, or goggle eyes, quick sighted; a full and large body, and more than of middle stature; broad shoulders, narrow sides, yellow or dark flaxen hair, and it curling or turning up; a fierce countenance, but ruddy high sanguine complexion; strong, valiant, and active; step firm, and mind courteous.

Countries ruled by ♌.--France, Italy, Bohemia, Sicily, Rome.--*Towns*: Rome, Bath, Bristol, Taunton, Cremona, Prague, Apulia, Ravenna, and Philadelphia; also the Alps and the ancient Chaldea, as far as Bussorah.

VIRGO.

Property and Quality of ♍.--It is an earthy, cold, melancholy, barren, feminine, nocturnal, southern sign; the house and exaltation of ☿; of the earthy triplicity.

Places.--It signifies a study, where books are kept; a closet, a dairy-house, corn-fields, granaries, malt-houses, hay, barley, wheat or peas ricks, &c.; or a place where cheese and butter is preserved and stored up.

Diseases.--The worms, wind, cholic; all obstructions and croaking of the bowels, infirmities in the testicles, any disease in the belly.

Countries ruled by ♍.--Turkey in Europe and Asia, Switzerland, Mesopotamia, or Diarbed; all the country between the Tigris and the Euphrates, the land of the Turcomans, &c., and the West Indies.--*Towns*: Paris, Lyons, Toulouse, St. Etienne, Basil, Heidelburg, Reading; also Jerusalem, Candia, Lower Silesia, Croatia or Liburnia, Babylon

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or Bagdat, Thessaly, Corinth, and the Morea. Also the trade and government of Liverpool, which are ruled especially by the 9th degree.

Shape and Form.--A slender body, rather tall, but well composed; a ruddy, brown complexion; black hair,[47] well favoured or lovely, but not a beautiful creature; a small, shrill voice, all members inclining to brevity;[48] a witty, discreet soul, judicious, and exceedingly well spoken; studious, and given to history, whether man or woman. It produces a rare understanding, if ☿be in this sign, and ☽in ♋; but somewhat unstable.

LIBRA.

Nature and Property of ♎.--This sign is hot and moist, sanguine, masculine, moveable, equinoctial, cardinal, humane, diurnal: of the airy triplicity, and western; the chief house of ♀.

Diseases.--All diseases, (or the stone and gravel) in the reins of the back and kidneys; heats and diseases in the loins or haunches; imposthumes or ulcers in the reins, kidneys, or bladder; weakness in the back, corruption of blood.

Places.--In the fields it represents ground near windmills, or some straggling barn or outhouse, or sawpits, or where coopers work, or wood is cut, sides of hills, tops of mountains, trees, grounds where hawking and hunting is used; sandy and gravel fields; pure clear air, and sharp; the upper rooms in houses, chambers, garrets, one chamber within an-other; tops of chests of drawers, wardrobes, &c.

Shape and Form.--It personates a well-framed body, straight, tall, and more subtle or slender than gross; a round, lovely, and beautiful visage; a pure sanguine colour; in youth, no abundance or excess in either red or white; but in age, pimples, or a very high colour; the hair yellowish, smooth, and long, eyes generally blue, and temper even.

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Countries ruled by ♎.--China, Japan, parts of India near them; Austria, Usbeck in Persia, towards India; Upper Egypt, Livonia, the vicinity of the Caspian Sea.--*Towns*: Lisbon, Vienna, Antwerp, Francfort, Spires, Fribourg, Charlestown in America, and its vicinity.

SCORPIO.

Nature and Property of ♏.--It is a cold, watery, nocturnal, phlegmatic, northern, feminine sign; of the watery triplicity; the house and joy of Mars; usually it represents subtle, deceitful men.

Diseases.--Gravel, the stone in the secret parts or bladder; ruptures, fistulas, or the piles; priapisms, all afflictions in the private parts, either of men or women; defects in the matrix, and its diseases; injuries, &c. to the spermatic cord, the groin, &c.

Places.--Places where all kinds of creeping beasts use, as beetles, &c.; or such as be without wings and are poisonous; gardens, vineyards, orchards, ruinous houses near waters; muddy, moorish grounds; stagnant lakes, quagmires, ponds, sinks, the kitchen or larder, washhouse, &c.

Form and Description.--A corpulent, strong, able body, somewhat a broad or square face; a dusky, muddy complexion, and sad dark hair, much and crisping; a hairy body, somewhat bow-legged, short-necked; a squat, well-trussed fellow.

Countries ruled by ♏--Barbary, Morocco, Norway, Valet the Catalonia, Bavaria, and the ancient Cappadocia.--*Towns*: Francfort on the Oder, Messina, Ghent, Liverpool, which is especially ruled by the 19th degree.

SAGITTARY.

Quality and Nature of ♐.--It is of the fiery triplicity, east; in nature hot, dry, masculine, choleric; diurnal, common, bicorporal or double body, the house and joy of ♃.

Diseases.--It rules the thighs and buttocks, and all fistulous tumours or hurts falling in those members; and generally denotes heated blood, fevers, pestilence, falls from horses, or hurts from them or four-footed beasts; also prejudice by fire, heat, and intemperateness in sports.

Places.--A stable for war-horses, or a house where great four-footed beasts are usually kept; it represents in the fields, hills, and the highest land; also grounds that rise a little above the rest. In houses, upper rooms and places near the fire.

Shape and Form of Body.--It represents a well-favoured countenance, somewhat long visage, but full and ruddy, or almost like sunburnt, the hair light chestnut colour, the stature somewhat above the middle size, a conformity in the members, and a strong, able body; inclined to baldness, and one fond of horses.

Countries ruled by ♐.--Arabia Felix, Spain, Hungary, parts of France near Cape Finisterre, Dalmatia, Istria, Tuscany, Moravia, Sclavonia.--*Towns*: Cologne, Buda, Avignon, Narbonne, Toledo.

CAPRICORN.

Quality and Nature of ♑.--It is the house of Saturn, and is nocturnal, cold, dry, melancholy, earthy, feminine, cardinal, moveable. four-footed, southern: the exaltation of ♂.

Diseases.--It has government of the knees, and all diseases incident to those places, either by strains or fractures; it denotes leprosy, itch, and cutaneous complaints.

Places.--It shows an ox-house or cow-house, or where calves are kept, or tools for husbandry, or old wood is laid up, or where sails for ships and such materials are stored; also sheep-pens, and grounds where sheep feed;, fallow grounds, barren fields, bushy

and thorny; dunghills in fields, or where soil is laid in low houses; dark places, near the ground or threshold.

Corporature.--Usually dry bodies, not high of stature, long, lean, and slender visage; thin beard, and black hair, a narrow chin, long small neck, and narrow chest. I have found many times, ♑ ascending, the party to have white hair, but in the seventh ever black.[49]

Countries ruled by ♑.--India, Greece, parts of Persia about Circan, Macran, and Chorassan; Lithuania, Saxony, Albania, Bulgaria, Stiria, Mexico, and parts about the Isthmus of Darien, Santa Martha, Popayan, Pasta, &c.--*Towns*: Mecklenburgh, Hesse, Oxford; and also the Orkney Islands.

AQUARIUS.

Nature and Property of ♒.--This is an airy, hot, and moist sign; diurnal, sanguine, fixed, humane, masculine, the principal house of ♄; western.

Sickness.--It governs the legs, ancles, and all manner of infirmities incident to those members; spasmodic and nervous diseases, cramps, wind, &c.

Places.--Hilly and uneven places; spots newly dug or ploughed, or where quarries of stone are, or any minerals have been dug up; in houses, the roofs, eaves or upper parts; vineyards, or near some little spring or conduit head.

Shape and form.--It represents a squat, thick corporature, or one of a strong, plump, well-composed body, not tall: a long visage, sanguine complexion; if ♄, who is lord of this house, be in ♑ or ♒, the party is black in hair, and in complexion sanguine, with prominent teeth; otherwise I have observed the party is of clear, white, or fair complexion, and of sandy-coloured hair, or very flaxen, and a very pure skin.[50]

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Countries ruled by ♒.--Arabia the stony, Russia, Tartary, Prussia, parts of Poland, Lithuania and Muscovy, Lower Sweden, Westphalia.--*Towns*: Hamburgh, Bremen, Piedmont; also Affghaunistan, and other parts of Asia bordering on Persia; and this sign has rule over the affairs of state in England, especially the 13th degree.[51]

PISCES.

Property and Quality of ♓.--This is a northern, cold sign, fruitful, phlegmatic, feminine, watery; the house of ♃and exaltation of ♀; a bicorporeal, common or double-bodied sign; an idle, effeminate, sickly sign, or representing a party of no action.

Sickness.--All diseases in the feet, as the gout; and all lameness and pains incident to those members, mucous discharges, itch, blotches, breakings out; boils and ulcers proceeding from corrupt blood; colds and moist diseases, and bowel complaints caused by wet feet.

Places.--It represents grounds full of water, or where many springs and many fowl are: also fish-ponds, or rivers full of fish; places where hermitages have been, moats about houses, water-mills. In houses, places near the water, as some well or pump, or where water stands.[52]

Corporature.--A short stature, not very well made; a good large face, pale complexion, the body fleshy or swelling, not very straight, but incurvating, or stooping somewhat with the head.[53]

Countries ruled by ♓.--Portugal, Calabria, Normandy, Galicia in Spain, Cilicia.--*Towns*: Alexandria, Ratisbon, Worms, Seville, Compostella, Tiverton.

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Chapter 16. Teaching What Use May Be Made Of The Former Discourse Of The Twelve Signs

IF one demand of the artist, what condition, quality, or stature the person inquired of is, then observe the sign of that house whereby he is signified, and the planet in it, the sign wherein the lord of that house is, and wherein the Moon is; mix one with another, and by the greater testimonies judge; for if the sign be humane, viz. ♊, ♍, ♒, or the first half of ♐that ascends, and the lord of that sign, or the ☽in any sign of the same nature, you may judge the body to be handsome, and the conditions of the party to be sociable, or very courteous, &c. If the query be concerning a disease, and ♈be either on the cusp of the ascendant or descending in the sixth house, you may judge he has something in his disease of the nature of ♈, but what it is, you must know by the concurrence of the other significators.

If a person has lost or missed any cattle, or any material thing, let him observe what sign the significator of the thing is in; if in ♈and it be a beast strayed, or the like, let him see what manner of places that sign directs into, and let him repair thither to search, considering the quarter of heaven the sign signifies; if it be a piece of goods that without hands cannot be removed, then let him look into such parts of or about his house, as ♈signifies.

If one asks concerning travel, whether such a country, city, or kingdom will be healthful or prosperous unto him, see in the figure what sign the lord of the ascendant is in: if the significator be fortunate in ♈, or if ♃or ☌ be therein, he may safely travel or sojourn in such cities or countries as the sign ♈represents; which you may easily perceive in the above-named catalogue. Those countries subject to the sign wherein the infortunes are posited, unless they themselves be significators, are ever unfortunate. Remember, that a gentleman inquires, usually, if he shall have his health and live jocundly in such or such a

country or city; the merchant wholly aims at trade, and the increase of his stock; therefore, in the merchant's figure, you must consider the country or city subject to the sign of the second house, or where the part of fortune, or lord of the second house is, and which is most fortified, and thither let him trade.[54]

Chapter 17. Of The Essential Dignities Of The Planets

THE exact way of judicature in astrology is, first, by being perfect in the nature of the planets and signs; secondly, by knowing the strength, fortitude, or debility of the significators, and well poising of them, and their aspects and several mixtures, in your judgment; thirdly, by rightly applying the influence of the figure of heaven erected, and the planets' aspects to one another at the time of the question, according to natural and not enforced maxims of art; for by how much you endeavour to strain a judgment beyond nature, by so much the more you augment your error. A planet is then said to be really strong when he has many essential dignities,[55] which are known by his being either in his house, exaltation, triplicity, term, or face, at the time of erecting the figure. As, for example, in any scheme of heaven, if you find a planet in any of those signs we call his house, he is then essentially strong; as ♄in ♑, or ♃in ♐, &c.

Essential Dignity by House.--In judgment, when a planet or significator is in his own house, it represents a man in such a condition, as that he is lord of his own house, estate, and fortune; or a man wanting very little of the goods of this world; or it tells you the man is in a very happy state or condition: this will be true, unless the significator be retrograde, or combust, or afflicted by any other malevolent planet or aspect.

Exaltation.--If he be in that sign wherein he is *exalted*, you may consider him essentially strong; whether he be near the very degree of his exaltation, or not; as ♂ in ♑, or ♃in ♋.

If the significator be in his exaltation, and no ways impedited, but angular, it represents a person of haughty condition, arrogant, assuming more to himself than his due; for it is observed, the planets in some part of the zodiac do more evidently declare their effects than in others.

Triplicity.--If he be in any of those signs which are allotted him for his *triplicity*, he is also strong, but in a less degree.

A planet in his *triplicity* shews a man modestly endued with the goods and fortune of this world; one well descended, and the condition of his life, at present time of the question, to be good; but not so much so as if in either of the two former dignities.

Term.--If any planet be in those degrees we assign for his *terms*, we allow him to be slightly dignified.

A planet fortified, only as being in his own *terms*, rather shews a man more of the corporature and temper of the planet, than any extraordinary abundance in fortune, or eminence in the commonwealth.

Face.--If any planet be in his decanate, or face, he has the least possible essential dignity; but being in his own decanate or face, he cannot then be called peregrine.

A planet being in his decanate or *face*, describes a man ready to be turned out of doors, having much to do to maintain himself in credit and reputation and in genealogies it represents a family at the last gasp, even as good as quite decayed, hardly able to support itself.

The planets may be strong in another way; viz. accidentally; as when direct, swift in motion, angular, in △ or ✶aspect with ♃or ☉, &c., or in ♂with certain notable fixed stars, as shall hereafter be related. Here follows a table of essential dignities: by only casting your eye thereon, you may perceive what essential dignity or imbecility any planet has.

There has been much difference between the Greeks, Aranians, and Indians, concerning the essential dignities of the planets: I mean, how to dispose the several degrees of the signs suitably to any planet.

After many ages had passed, and until the time of Ptolemy, the astrologians were not resolved hereof; but since Ptolemy's time, the Grecians unanimously followed the method he left, which the other Christians of Europe to this day since retain as most rational: but the Moors of Barbary at present, and those astrologians of their nation who lived in Spain, do somewhat vary from us to this very day: however, I present thee with a table according to Ptolemy.

Chapter 18. Table Of The Essential Dignities Of The Planets

Signs Houses Exaltations. Triplicity:
Day. Night. Terms Faces. Detriment. Fall.

♈ ♂ D. ☉19 ☉♃ ♃6 ♀ 14 ☿21 ♂ 26 ♄30 ♂ 10 ☉20 ♀ 30 ♀ ♄

♉ ♀ N. ☽3 ♀ ☽ ♀ 8 ☿15 ♃22 ♄20 ♂ 30 ☿10 ☽20 ♄30 ♂

♊ ☿D. ☊3 ♄☿ ☿7 ♃14 ♀ 21 ♄25 ♂ 30 ♃10 ♂ 20 ☉30 ♃

♋ ☽D. N. ♃15 ♂ ♂ ♂ 6 ♃13 ☿20 ♀ 27 ♄30 ♀ 10 ☿20 ☽30 ♄ ♂

♌ ☉D. N. ☉♃ ♄6 ☿13 ♀ 19 ♃25 ♂ 30 ♄10 ♃20 ♂ 30 ♄

♍ ☿N. ☿15 ♀ ☽ ☿7 ♀ 13 ♃18 ♄24 ♂ 30 ☉10 ♀ 20 ☿30 ♃ ♀

♎ ♀ D. ♄21 ♄☿ ♄6 ♀ 11 ♃19 ☿27 ♂ 30 ☽10 ♄20 ♃30 ♂ ☉

♏ ♂ N. ♂ ♂ ♂ 6 ♃14 ♀ 21 ☿27 ♄30 ♂ 10 ☉20 ♀ 30 ♀ ☽

♐ ♃D. ♉3 ☉♃ ♃8 ♀ 14 ☿19 ♄25 ♂ 30 ☿10 ☽20 ♄30 ☿

♑ ♄N. ♂ 28 ♀ ☽ ♀ 6 ☿12 ♃19 ♂ 25 ♄30 ♃10 ♂ 20 ☉30 ☽ ♄

♒ ♄D. ♄☿ ♄6 ☿12 ♀ 20 ♃25 ♂ 30 ♀ 10 ☿20 ☽30 ☉

♓ ♃N. ♀ 27 ♂ ♂ ♀ 8 ♃14 ☿20 ♂ 26 ♄30 ♃10 ♃20 ♂ 30 ☿ ☿

EXPLANATION OF THE TABLE.

Every planet has two signs for his HOUSES, except Sol and Luna; they but one each. ♄has ♑and ♒; and ♃has ♐and ♓; ♂ has ♈and ♏; ♀ has ♉and ♎; ☿has ♊and ♍. One of these houses is called diurnal, noted in the second column by the letter D; the other is nocturnal, noted by the letter N. The planets have their EXALTATIONS, as the third column points out: thus ☉in 19 ♈; ☽in 3 ♉; ☊in 3 degrees ♊, &c. are exalted. These twelve signs are divided into FOUR TRIPLICITIES. The fourth column tells you which planet or planets, both night and day, governs each triplicity; as over against ♋, ♏, ♓, you find ♂, who governs by day and night in that triplicity; and over against ♈, ♌, ♐, you find ☉and ♃, viz. that ☉has domination by day, and ♃by night, in that triplicity: the first six degrees of ♈are the TERMS of ♃, from six to fourteen, the TERMS of ♀, &c. &c. Over against ♈, in the tenth, eleventh, and twelfth columns, you find ♂ 10, ☉20, ♀ 30; viz. the first ten degrees of ♈are the FACE of ♂; from ten to twenty, the FACE of ☉; from twenty to thirty, the FACE of ♀, &c.

In the thirteenth column, over against ♈, you find ♀ DETRIMENT, viz. ♀ being in ♈, is in a sign opposite to one of her own houses, and so is said to be in her DETRIMENT. In the 14th column, over against ♈, you find ♄, over his head FALL, that is, ♄when he is in

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♈is opposite to his exaltation, and so is unfortunate, &c. Though these things are expressed in the nature of the planets already, yet this table makes it appear more evident to the eye, and is useful for reference.

Chapter 19. Considerations Before Judgment

ALL the ancients that have written of questions do give warning to the astrologer, that before he delivers judgment he well consider whether the figure is radical[56] and capable of judgment: the question then shall not be taken for radical: 1st, when either the first or second degrees of a sign ascend, (especially in signs of short ascensions, viz., ♑, ♒, ♓, ♈, ♉, ♊). You may not then adventure judgment, unless the querent be very young, and his corporature, complexion, and moles or scars of his body, agree with the quality of the signs ascending. 2d. If 27 or more degrees of any sign ascend, it is not safe to give judgment, except the querent be in years corresponding to the number of degrees ascending, or unless the figure be set upon a time certain, viz. any event happening, such as a man went away or fled at such a time precisely; to learn the result: here you may judge, because it is no propounded question. 3d. It is not safe to judge when the ☽is in the later degrees of a sign, especially in ♊, ♏, or ♑; or, as some say, when she is in *via combusta*, which is, when she is in the last 15 degrees of ♎or the first 15 degrees of ♏.

All manner of matters go hardly on (except the principal significators be very strong) when the ☽is void of course; yet sometimes she performs it void of course, if in ♉, ♋, ♐, or ♓. You must also be wary, when in any *question propounded* you find the cusp of the seventh house afflicted, or the lord of the house retrograde or impedited, and the matter at that time not concerning the seventh house, but belonging to any other house: it is an argument that the judgment of the astrologer will give little content, or

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nothing please the querent, for the seventh house generally has signification of the artist. The Arabians, as Alkindus and others, do deliver the following rules, as very fit to be considered before a question be judged:--viz. if ♄be in the ascendant, especially retrograde, the matter of that question seldom or never comes to good: ♄in the seventh either corrupts the judgment of' the astrologer, or is a sign the matter propounded will come from one misfortune to another. If the lord of the ascendant be combust, neither question propounded will take, nor the querent be regulated. The lord of the seventh unfortunate, or in his fall, or terms of the infortunes, the artist shall scarce give a solid judgment.

When the testimonies of fortunes and infortunes are equal, defer judgment: it is not possible to know which way the balance will turn; however, defer your opinion till another question better inform you.

Chapter 20. What Significator, Querent, And Quesited, Are; And An Introduction To The Judgment Of A Question

THE querent is he or she that propounds the question and desires resolution; the quesited is he or she, or the thing sought and inquired after.

The significator is no more than that planet which rules the house that signifies the person or thing demanded; as if ♈is ascending, ♂ being lord of ♈, shall be significator of the querent, viz. the sign ascending shall in part signify his corporature, body, or stature: the lord of the ascendant, according to the sign he is in, the ☽and planet in the ascendant, equally mixed together, shall shew his quality or conditions; so

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that let any sign ascend, what planet is lord of that sign shall be called lord of the house, or significator of the person inquiring, &c.

So that, in the first place, when any question is propounded, the sign ascending and his lord are always given unto him or her that asks the question.

Secondly: You must then consider the matter propounded, and see to which of the twelve houses it does properly belong: when you have found the house, consider the sign and lord of that sign, how, and in what sign and what part of heaven he is placed, how dignified, what aspect he has to the lord of the ascendant, who impedites your significator, who is a friend unto him, viz. what planet it is, and what house he is lord of, or in what house posited; from such a man or woman signified by that planet shall you be aided or hindered, or by one of such relation unto you as that planet signifies; if lord of such a house, such an enemy; if lord of a house that signifies enemies, then an enemy verily; if of a friendly house, a friend.

The whole natural key of astrology rests in the words preceding, rightly understood. By the examples following, I shall make all things more plain; for I do not desire or will reserve any thing whereby the learner may be kept in suspense of understanding what is useful for him, and most fit to be known. In every question we do give the ☽as a consignificator with the querent or lord of the ascendant. Having well considered the several applications and separation of the lords of those houses signifying your questions, as also the ☽, her situation and quality of the aspects she has, and each significator has to each, you may begin to judge and consider whether the thing demanded will come to pass, yea or nay; by what or whose means, the time when, and whether it will be good for the querent to proceed further in his demands. yea or nay.

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Chapter 21. To Know Whether A Thing Demanded Will Be Brought To Perfection, Yea Or Nay

THE ancients have delivered unto us, that there are four ways or means which discover whether a person's question demanded shall be accomplished, yea or nay.

Conjunction.--First, by conjunction: when therefore you find the lord of the ascendant, and the lord of that house which signifies the thing demanded, hastening to a ☌, and in the first house, or in any *angle*, and the significators meet with no prohibition or refranation, before they come to perfect ☌, you may then judge that the thing sought after shall be brought to pass without any manner of let or impediment; the sooner, if the significators be swift in motion, and essentially or accidentally strong; but if this ☌of the significators be in a *succeedent* house, it will be perfected, but not so soon; if in *cadent* houses, with infinite loss of time, some difficulty, and much struggling.

Aspects of ✶ *or* △.--Things are also effected, when the principal signifiers apply by ✶or △ aspect out of good houses and places where they are essentially well dignified, and meet with no malevolent aspect to intervene ere they come to be in perfect ✶or △.

Aspects of □ *and* ☍.--Things are also produced to perfection when the significators apply by □aspect, provided each planet have dignity in the degrees wherein they are, and apply out of proper and good houses; otherwise not. Sometimes it happens that a matter is effected when the significators apply by ☍, but it is when there is mutual *reception* by *house*, and out of friendly houses, and the ☽separating from the significator of the thing demanded, and applying presently to the lord of the ascendant. I have seldom seen any thing drought to perfection by this way of opposition, but the querent had been better the thing had been undone; for, if the question was concerning marriage, the parties seldom agreed, but were ever wrangling and disputing, each party

repining at his evil choice, laying the blame upon their covetous parents, as having no mind to it themselves; and if the question was about portion or monies, the querent did, it is true, recover his money or portion promised, but it cost him more to procure it in suit of law than the debt was worth; and so have I seen it happen in many other things, &c.

Translation.--Things are brought to perfection by *translation* of light and nature, in this manner:--When the significators both of querent and quesited are separating from ☌, or ✶, or △ aspects of each other, and some other planet separates himself from one of the significators, of whom he is received, either by house, triplicity, or term, [57] and then this planet applies to the other significator by ☌or aspect, before he meets with the ☌or aspect of any other planets; he thus translates the force, influence, and virtue of the first significator to the other, and then this intervening planet, (or such a man or woman as is signified by that planet,) shall bring the matter in hand to perfection.

Consider what house the planet interposing or translating the nature and light of the two planets is lord of, and describe him or her; and say to the querent, that such a party shall do good in the business of, &c.; viz. if lord of the second, a good purse effects the matter; if lord of the third, a kinsman or neighbour; and so of all the rest of the houses; of which more hereafter.

Collection.--Matters are also brought to perfection, when the two principal significators do not behold one another, but both cast their several aspects to a more weighty planet than themselves, and they both receive him in some of their essential dignities; then shall that planet, who thus *collects* both their lights, bring the thing demanded to perfection; which signifies that a person somewhat interested in both parties, and described and signified by that planet, shall perform the thing which otherwise could not be perfected; as many times you see two fall at variance, and of themselves cannot

think of any way of accommodation, when suddenly a neighbour or friend accidentally reconciles all differences, to the content of both parties; and this is called a collection.

In all questions, you are generally to observe this method following:--The ascendant represents the person of the querent, and the second his estate, the third his kindred, the fourth his father, the fifth his children, the sixth his servant or sickness, the seventh his wife, the eighth the manner of his death, the ninth his religion or journeys, the tenth his estimation or honour, mother, trade, &c.; the eleventh his friends, the twelfth his secret enemies: also understand, that when one asks concerning a woman, or any party signified by the seventh house and the lord thereof, that then the seventh house shall be her ascendant, and signify her person; the eighth house shall signify her estate, and be her second; the ninth house shall signify her brethren and kindred; the tenth shall represent her father; the eleventh her children, or whether apt to have children; the twelfth her sickness and servants; the first house her sweetheart; the second house her death; the third her journey; the fourth her mother, or trade, &c.; the fifth her friends; the sixth her sorrow, care, and private enemies. Let the question be of or concerning a churchman, minister, or the brother of the wife or sweetheart, the ninth house shall represent each of these; but the tenth house shall be significator of *his* substance; the eleventh house of his brethren; and so in order: and so in all manner of questions, the house signifying the party quesited shall be his ascendant or first house, the next his second house, and so continuing round about the whole heavens of twelve houses. If a question be made of a king or nobleman, the tenth is his first house, the eleventh his second, &c.; but in nativities, the ascendant always influences the party born, whether king or beggar. These things preceding being well understood, you may proceed to judgment; not that it is necessary you have all that is written in your memory exactly, but, that you be able to know when you are in error, when not; when to judge a question, when not.

Of the true Time of erecting a Figure.

The proper time is that when you feel most anxious about any matter, and first form the resolution to erect a figure on the subject: if you find the figure radical, and lay aside all self-love and prejudice, you may safely judge a figure erected for that instant of time.

If a person apply to an astrologer, the figure must be taken for the exact time he first speaks on the subject; or, if it be by letter, when it is first read and understood by the artist. If it be not a question, but an event suddenly happening, then the moment of its commencement will shew, by a figure, its result &c.; as the first setting off on a journey, beginning a letter, or any business, &c.; or when you first discover the loss of any article, or hear of any event happening: in all these cases, the first impression on your mind is the true moment for the figure.

Of the Planet or Planets which hinder or impedite the Thing demanded in any Question.

In all questions consider carefully what planet it is which obstructs or hinders the perfection of the thing desired. We receive judgment herein from that planet with whom the lord of the ascendant be joined, (whether by bodily ☌or by aspect), or the significator of the thing inquired after, whether it be the ☽herself, or that she be partaker with the lord of the ascendant or not, or signify the thing demanded.

Carefully observe the planet to which the querent's significator is joined, or the ☽; and observe how that planet is disposed, and unto whom *he* is joined; for if the lord of the ascendant, ☽, or significator of the thing propounded, be joined to an evil planet, evilly disposed, without reception, or if he be not evilly disposed, but be joined to an infortune, and that infortune receive him not, it denotes the destruction of the thing demanded.

A planet is ill-disposed when he is *peregrine*, *retrograde*, *combust*; also if *cadent* and behold not the lord of the house or the cusp of the house of the thing demanded. The aspect to the cusp is better than to the lord of the house.

If the significator, as above, be joined to an unfortunate planet, viz. one retrograde, combust, or cadent; then observe whether mutual reception intervene; which shews the perfection of the matter, though with much labour and solicitation. If there be no reception, the affair will come to nothing though there may have been much probability of its performance.

If the lord of the ascendant, the ☽, or lord of the thing demanded, or the planet who receives any of them, be free from affliction, though without mutual reception, it perfects the matter with facility.

If any one of them be free from the infortunes, and joined with any benevolent planet, who is himself aspected by a malevolent, without mutual reception, the matter will be brought to a good conclusion.

Consider carefully whether planets in aspect be without reception, for when they are in reception, things are ever brought to pass; though, if the aspect be evil, with degree of trouble, delay, &c.

Consider also, whether any other planet *prohibit* before the significators join in perfect ☌with an evil planet; if so, it hinders the thing from happening: but if no such prohibition or cutting off the light of the *infortune* occur, by which its malevolence may be taken off, the thing will be effected.

If an infortune *collect* the light of other planets, or if light be translated to an infortune, the matter will not be effected unless there be reception; viz. that the infortune be received by, or disposed of, or ruled by, (which is all one thing), the significators.

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Chapter 22. Questions Concerning The First House. If The Querent Be Likely To Live Long--Yea Or Not?

Signs of Health and long Life.

CONSIDER whether the sign ascending, the lord thereof, and ☽, be free from affliction; viz. combustion or ♂, □or of ☍the lords of the 8th, 12th, 6th, or 4th houses; whether they be direct, strong in dignities, swift in motion, angular, especially in the 1st, or 10th houses; or if in the 11th or 9th, and in good aspect with ♃, or ☊, or ☉, in the terms of ♃or ☊: these are arguments of health and long life; and the contrary, viz. the asc. ☽, or lord of the 1st, in bad houses, and afflicted, shew mischief at hand.

If the lord of the ascendant be under the Sun's beams, or going to combustion, which is worse than when he is leaving ☉; or ☽cadent and unfortunate, by being afflicted by those planets having rule in the 8th, or 6th; or ♄, ♂ or ♌in the ascendant or 7th house peregrine, or in their detriments or retrograde, judge that the querent will not be long lived, but is near some danger or misfortune, according to the quality of the significators, and of the houses those planets are lord of, which afflict the ☽, &c.

The Time when any of those Accidents shall happen.

If the lord of the ascendant be going to ♂, &c. of ☉, of lords of the 8th, or 4th, see how many degrees he is distant, and in what sign either of them are; and for each degree allow one week in a moveable sign, one month in a common sign, and one year in a fixed sign; this is only for example; for the measure of time must be limited according to the other significators concurring in judgment herein.

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Secondly.--Consider also how many degrees ☽is from any infortune, or the lords of the 6th or 8th, according to the signs and houses in which they are found, and their nature and quality.

Thirdly.--If there be an infortune in the ascendant, see how many degrees the cusp of the 1st house wants of the place of the evil planet; or, if he be in the 7th house, how far it is from the cusp of that house, and compute the time of death, sickness, or misfortune, by the degrees, as they may be in fixed, common, or moveable signs.

If the lord of the ascendant be most afflicted by the lord of the 6th, and in the 6th, or come to combustion in the 6th, the querent will have very many and tedious sicknesses, which will scarce leave him till his death. This will be more certain if the lords of the ascendant, 8th house, and ☽, be all placed in the 6th.

If the ☽, lord of the ascendant, or sign ascending, be most afflicted by the lord of the 8th, or by a planet situated in the 8th, judge that the sickness which now afflicts him, or shortly will, will end fatally, and that death is approaching. But if the ☽and other significators are chiefly afflicted by the lords of other houses, judge the misfortune from the nature of the house or houses of which the afflicting planets are lords; and the first origin thereof from some person or thing belonging to that house, wherein you find the afflicting planet posited. Judge thereby a misfortune, but not death.

If there be any fixed star, of much power, near the ☽, lord of the ascendant or the degree ascending, or with the planet which afflicts any of these, you may judge evil thereby, according to the nature of that star; for which, see the chapter on Fixed Stars.

Caution.

Avoid rash judgments; especially of death. This should never be judged by one single testimony, however strong. And though the lord of the ascendant be going to

combustion in the house of death, observe whether the ☽, ♃, or ☋ (or if well aspected and strong), throw any good aspect to the lord of the ascendant, before he come to perfect ☌with ☉; for then either medicine or natural strength will contradict that malignant influence, or take off part of that misfortune. When two or more of the rules aforesaid occur, you may be more bold; yet concerning the absolute time of death, I have found it best to be wary. Though you may safely judge that the querent will not be long-lived, or else subject to many calamities; and this I know by many verified examples. This knowledge will be useful to those who will use their reason to avoid those casualties their nature or inclinations would run them into.[58]

To what Part is it best the Querent should direct his Affairs or where may he live most happily?

The 12 houses are divided into the four quarters of heaven, east, west, north and south. From the cusp of the 1st, where the ☉and planets rise, to the cusp of the 10th, is the south-east quarter. The 1st, is due east; the 12th, is about two points south of east; the middle of the 11th, is south east; the cusp of the 11th, is about two points east of south; and the 10th, is due south. In like manner, from the 10th to the 7th house is the south-west quarter; and from the 7th to the 4th is the north-west quarter; and, lastly, from the 4th to the ascendant is the north-east quarter. In that quarter wherein you find ♃, ☋, ☽, or ⊕, or most of them, direct the querent to proceed in that direction, especially if ⊕ and ☽be free from combustion and be strong. If ♃or ☋ be lords of the 8th, 12th, or 6th houses, you must avoid them; and avoid that quarter wherein the evil planets are, unless they be essentially strong, and lords of the 1st, 2d, 10th, or 11th houses, when they may prove friendly.[59]

If the querent desire to live where he may most enjoy *health*, look to the quarter of the lord of the ascendant, or ☽; and whichever is strongest, or casts the best aspect to the degree ascending, to that quarter repair for health. It an increase of *wealth* be

considered, see where the lord of the 2d, the ⊕, and its dispositor, or any two of them, be, and thither repair for that end. Of this I shall speak in other judgments.

What Part of LIFE *is like to be best*?

See in what angle or quarter of heaven the fortunate and promising planets are; for in this way of judging we usually give to every house five years, more or less, as the significators promise life or death. Begin with the 12th, then the 11th, then the 10th, &c., and so round to the ascendant. If ♃or ⚲ be in the 11th or 10th, judge the querent to have lived happily from the 5th to the 15th year of age: if they be in the 8th or 7th, he will or hath lived contented from fifteen to thirty; if 21, &c. be in the 6th, 5th, or 4th, house, say that after his middle age, from 30 to 45, he may do well; but if the benefits be in the last quarter, his greatest happiness will be in his last days, or after 45. If you find the significators very strong, you may add a year to each house. Lastly, the aspects the ☽and lord of the ascendant are separated from show what and what manner of accidents have preceded the question; their next application what may be next expected. If you consider the house or houses the planets they separated from are lords of, it acquaints you with the matter, nature, person, and quality of the things already happened--evil if the aspects were evil, and good if they were good. Also if you note the quality of the next aspect by application, and the well or ill-being and position of the planets applied to, it spews the character of the next succeeding accidents and events, their nature, proportion, &c., and the time when they will happen.

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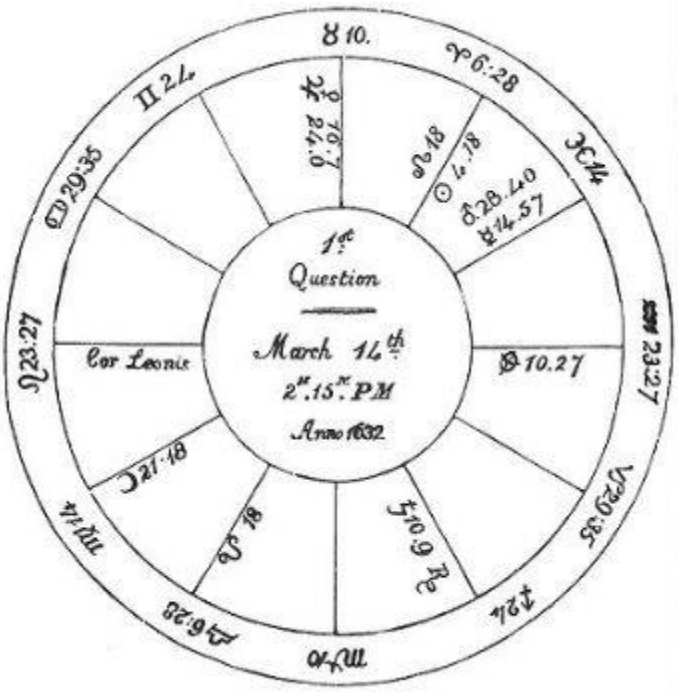

Fig. 2

An ASTROLOGICAL JUDGMENT *concerning these Demands by the Querent*.

1. If he were likely to live long, yea or not?

2. To what part of the world he were best direct his course?

3. What part of life was likely to be most fortunate?

4. He desired I would relate some of the general accidents which had happened to him already?

5. What accidents in future he might expect?

6. The time when?

The stature of the querent is shewn by ♌, the sign ascending; a fixed star of the 1st magnitude, of the nature of ♂ and ☌, called *Cor* ♌, the lion's heart, is near the cusp of the 1st house, in ♌24° 34';[60] both the cusp of the 1st house and the degree wherein

☉lord of the ascendant is, are the terms of ♃; the ☽is in △ aspect to both ♃and ☊, and they in the 10th house; so that the form and stature of the querent were decent. He was of middle stature, strongly compacted, neither fat nor fleshy, but comely and graceful, a fair visage, reddish hair, clear skin, some cuts on his right cheek (he was a soldier), and certainly the presence of the fixed star in the ascendant, which represents the face, occasioned those hurts or scars.[61]

As the sign ascending, and its lord, were in the *fiery* triplicity, and by nature hot and dry, so was this gentleman's temper and condition, being exceedingly valiant, choleric, high-minded, and of great spirit: for ☉is in his exaltation; yet ☽being in △ to the two fortunes, he was sober, modest, and excellently educated, thereby having great command of his passion; but as ☽was in ♂to ☿, he had his times of anger and folly, whereby he pinch prejudiced his affairs.[62]

1st QUERY.--*If live long, &c.*?

The ascendant not vitiated by the lords of the 6th or 8th; the lord of the ascendant in his exaltation no way impedited, pretty quick in motion, in the 9th house, and in terms of ♃; ☽separating from △ of ☊ applying to △ of ♃, he strong in the midheaven, and the malice of ♂ restrained by the △ of ♃; ☉above the earth, the fortunes angular and more potent than the infortunes; I concluded that, according to natural causes, he might live many years; that nature was strong, and he subject to few diseases. This has hitherto proved true; he being yet alive this present March, 1646.

2d QUERY.--*To what part of the world he were best direct his course*?

☉lord of the ascendant near the cusp of the 9th, (and the sign thereof moveable), the house of long journeys; I intimated that he was resolving suddenly upon a *journey* south-east: south, because the quarter of heaven wherein the lord of the

ascendant is, is south; east, because the *sign* where ☉is, is east, (*this he confessed*); and as ☉was but 2° 10′ distant from the cusp of the 9th, he went away within two months.

I judged those countries subject to ♈might be propitious. Had his resolution been to stay in England, it might have been good for him, for England is subject to ♈: I would have advised him to steer towards Kent, Essex, Sussex or Suffolk; for they lie south-east from London. But if sometimes you find a city, town or kingdom, subject to the *sign* which promises good, stands not in the direction the sign or quarter of heaven points out as above, observe this rule--that if enforced to live in that country, city, &c., then direct your actions or employment *to those parts* of that country, &c., which lie east, west, &c., as in the figure is directed.

As the ☽applied strongly to the △ of ♃, and he and ♀ were in ♉, which rules *Ireland*, I advised him that *Ireland* would agree with his constitution, and that he might get *honour* there, as the planet to whom ☽applies is in the house of *honour*. And the querent did go into Ireland, and there performed good service, and obtained a notable victory against the rebels.

3d QUERY.--*What part of his* LIFE *would be best*?

Considering the two fortunes were placed in the 10th, and ☊and ☉in the 9th, I judged his younger years would be the most pleasant; and ♂ being in the 8th, which comes to about the 24th, 25th, or 26th years of his age, I judged about that time many crosses, and that his afflictions first began. And seeing no fortunate planet either in the 7th, 6th, 5th, 4th, or 3d houses, I said the remainder of his life, for many years, would be little comfortable, and full of labour and trouble. Yet I judged those calamities should not suddenly come upon him, because ☽applied to △ of ♃, and wanted almost 3° of coming to a perfect aspect. Therefore I conceived by means of some person in authority represented by ♃, he should be supported or assisted in his affairs for almost three

years after the question. Had ♃been essentially dignified, I should have judged him a more durable fortune.

4th QUERY.--*What general* ACCIDENTS *had happened already*?

Although it is not usual to be so inquisitive, yet, seeing the figure so radical, I considered from what planets ☉, lord of the ascendant, had last separated. The ☉had lately been in ☌♂, then □♄, then ✶♃. Now as ♂ is lord of the 4th house, signifying lands, &c., and was now in the 8th, which signifies the *substance of women*, I judged he had been molested of late concerning some lands, or the jointure or portion of his wife, or a woman; wherein I was confirmed the more, as ☽applies to ☍♂ in the 8th house; she being in the querent's house of property, which sheaved that the quarrel or strife should be concerning money or things signified by that house. (*All this was very true*.)

As ☉had lately been in □♄, significator of the querent's wife, I told him that his wife and he had been at great variance; and because her significator ♄did dispose of his ⊕, I judged that she had no mind that he should have any of her estate or manage it, but kept it to her own use. For ♄is retrograde in a fiery sign, and the sign of the 7th fixed, all which shews her to be a woman not willing to be curbed or to submit. (*This was confessed*.)

Lastly, as ☉was lately in ✶to ♃and ♃in the 10th, I told him that some great lawyer or courtier[63] had endeavoured to reconcile the differences between them; and ☉and ♄did now apply to △ aspect, there seemed, at present, a willingness in both parties to be reconciled. Nor did I see any obstruction in the matter, except ☿, who is in □aspect to ♄, did impedite it. I judged ☿, in general, to signify some lawyer, attorney, or writings; but, as he was lord of the querent's 2d, it might be because the querent would not consent to allow her such a sum of money as might be asked; or that, his purse being weak, he had not wherewithal to solicit his cause; or ☿being lord of the 11th, some pretended

friend would advise the contrary, or some of her lawyers; or, as the 11th is the 5th from the 7th, a *child* of the querent's wife might be the occasion of continuing the breach. (*I believe every particular herein proved true; however, this was the way to find the thing which disturbed their unity*.)

Observe, that as ♀, lady of the 10th, doth dispose of lord of the 8th, viz. the wife's fortune, so she had entrusted her estate to a great nobleman.

5th QUERY.--*What* ACCIDENTS*, in future, he might expect*?

In this query, I first considered ☉, lord of the ascendant, no ways unfortunate or in ill aspect with any planet; but, on the contrary, excellently fortified: I judged he had the wide world to ramble in, (for a planet strong, and in no aspect with others, shews a man at liberty to do what he will); and, for many years he might (*quoad capax*) live in a prosperous condition, and traverse much ground, or see many countries. For ♈, the sign which ☉is in, is moveable and on the cusp of the 9th, the house of long journeys; which denoted many changes and variety of action in sundry parts.

2dly: I observed ☽in his house of substance, applying to ♃in the 10th, and ♃lord of the 5th and 8th; the former the house of children; the latter that of the wife's substance. Hence I gathered, that the querent was desirous to treat with some nobleman (♃being in the 10th) about the education of his children; and that there might be a salary payable out of the wife's jointure. (*Such a thing he did settle before he left England*.)

3dly: I found ☽in ♍ *peregrine*.

4thly: ☿lord of his 2d, signifying his estate in ♓, his *detriment*; yet, in his own terms, afflicted by ♂, and having lately had the ☍of ☽. Hence I judged that he had been in of great want of money a little before the question was asked. And if we note the distance between the ☍of ☽and ☿, we find 6° 21′, shewing that he had been in want of money

about six months and somewhat more, previously to asking the question. (*This was confessed*.)

5thly: Seeing ☽was applying to △ of ♃, and then, before she got out of the sign ♍, did occur the ☌of ♂, I acquainted the querent that, after some years of pleasure, he would be in great danger of losing his life, goods, lands, and fortune. His *life*, because ♂ is in the 8th: his *estate*, because ☽is in the 2d; and his *lands* or *inheritance*, because ♂ is lord of the 4th and situated in the 8th house; for the 4th house denotes *lands*, &c.

6th QUERY.--*The time when*?

In this query, I considered the application of ☽to △ ♃; which wanting about 3 degrees, I judged that he might live pleasantly for about three years to come

2dly: Seeing that ☉lord of the ascendant, during his motion through ♈, did not meet any malevolent aspect, and had got 26 degrees to run through the sign, I gave this nature of judgment: I told him that for about 26 months, or until over two years to come, I judged he should live in a free condition, in those parts in which he intended his journey, &c.

Lastly: I considered how many degrees ☽wanted of the ☌of ☽.

Longitude of ♂ 28° 40

Longitude of ☽ 21 18

Difference 7 22

This difference, if in proportion unto time, and neither give years, because the *significators* are in common signs and not in fixed; nor months, because the signs signify somewhat more; but proportion a *mean* between both: the time limited in this way will amount to about three years and three quarters ere the ☌of ♂ to ☽should take

effect. But as this query was general, I might have allowed for every degree one year.[64] After, or about which time, he was in several actions, both dangerous to his person and fortune; and since that time till the present, he has had his intervals of good and ill, but is now under the frown of fortune, &c.

As the ☉at the time of the question was strong, he did overcome all manner of difficulties for many years, and has, in our unlucky differences, had honourable employment on his Majesty's part. But as ☽[65] is in ♂to ☌, so it was not without the general outcry and exclamations of the people; nor was it his fortune, though in great command, ever to do his Majesty any notable piece of service. And he is now for ever, by just sentence of the Parliament, deprived of the happiness of ending his days in England; which might, in some measure, have been foreseen by the ♂of ☽to ☌, he being lord of the 4th, the end of all things.[66]

N.B. All young beginners should at first write down their judgments on each figure at full length, and afterwards contract their opinions into a narrow compass; by this means they will soon acquire experience. It is well to enter every figure in a book for farther reference, and to remark and register such things as have occurred according to their predictions or otherwise; by which they will be able to correct their future judgments.

Chapter 23. If One Shall Find The Party At Home He Would Speak With?

THE ascendant and its lord are for the querent, the 7th and its lord for him you would speak with; but if it be with any relation, take the house signifying that relation and its lord; as, for the father the 4th, for a child the 5th, and for an intimate friend the 11th; if the lord of the 7th, or quesited's significator, be in any of the four angles, the party is at

home; but if he be in a succeedent house, he is not far from home; but if in a cadent house, then he is far from home.

If you find the lord of the ascendant apply to the quesited's perfect aspect the same day you intend to visit him, you may be assured either to meet him going to his house, or hear of him by the way; or, if any planet separate from the lord of the quesited's house, and transfer his light to the lord of the ascendant, you will learn where he is by a person signified by that planet. Describe the planet, and it personates the individual; and the nature of the planet, sign, and quarter of heaven it is in will, by the plurality of testimonies, shear whether it be male or female.

Of a thing suddenly happening, whether it signifies Good or Evil?

Erect your figure of heaven at the exact time of any event happening, or when you first heard of it: then consider who is lord of the ascendant, and which planet disposes of ☉and ☽and see if either of these be in the ascendant, and, if more than one, take the most powerful; and let his position be well considered. If he be in good aspect with ☉, ♃, or ☌, there will no evil arise from the accident, rumour, or whatever the event may be; but if you find that planet weak in the scheme, combust, or in evil aspect to ♅, ♄, ♂, or ☌, there will be some evil occur. If you consider the afflicting planet and his nature and position, you may learn the nature of the misfortune. If it be the lord of the 3d, it will come through some kinsman or neighbour, or by some short journey; if the lord of the 2d cast the ray, or the evil planet be in the 2d, it denotes loss of money;[67] if the lord of the 4th. trouble about houses, &c., or by means of a father or wife's mother; if the 5th, by intemperance, or by children, &c., and so of the rest.[68]

QUERY.--*What Mark, Mole, or Scar has the Querent on any Part of his Body? This is useful to prove that a question is radical, and to satisfy sceptics of the truth of the science*.

When you have, upon any demand, erected the querent's figure, observe what member of man's body the ascending sign represents; for upon that part of his body will the querent have a mole, mark, or scar; as, if the ascendant be ♈, the same will be on the head; if ♉, it will be on the neck; if ♊, on the arms or shoulders, &c.[69] And also in the part ruled by the sign in which the lord of the ascendant is, will there be another mark.

The signs on the cusp of the 6th house, and that in which the lord of the 6th is, will give other marks on the parts they rule. Also the sign in which ☽is found will give a mark in that part it governs.

If ♄give the mark, it is dark, obscure, or black; ♂ usually gives a red mole; but if he be in a fiery sign, it is generally a cut or scar.

If the sign or planet signifying the mark or mole be much afflicted, the mark, &c. will be more obvious and eminent.

If the sign or planet be masculine, the mark is on the *right* side of the body; but if they be feminine, on the *left* side. And if the significator of the mole, &c. be *above* the horizon, the mark or mole will be on the *fore part*, or visible to the eye, or on the outside of the member, &c.; but if the planet be *below* the earth, it will be found on the inside, of *hinder part*, or not visible. If few degrees are on the cusp of the house, or the planet signifying the mole, &c. be in few degrees of the sign, the mark, mole, &c., will be in the upper part of the member. If they be in the middle of the sign, it will be in the middle of the member or part ruled by the sign. But if the latter degrees ascend, or are on the 6th, or their lords, or ☽be in the latter degrees of a sign, then will the mark, mole, or scar be near the lower part of the member. If your question be radical, and the time rightly taken, the above rules will always exactly hold good. And so will they (*mutatis mutandis*) upon the body of the quesited; for if a person inquire concerning his wife, then the sign

zain n. adwan

on the 7th and its lord will shew the woman's marks; and the sign on the 12th, (the 6th from the 7th), and its lord will shew two other marks.

Many times if the ☽be in ♂or ☍☉, the querent has some blemish in or near his eyes: and this is ever true, if the ♂or ☍be in angles, and ☽or ☉be afflicted by Mars.[70]

Whether one absent be dead or alive?

If the quesited have no relation to the querent, then the ascendant, its lord, and ☽shall signify the absent person.[71] But if the party inquired after be a relation, then take the house and its lord which signifies that relation; as the 3d for a brother or sister, The 4th for a father, the 6th for a paternal uncle or aunt, the 10th for a mother, &c.

In judging this question, see whether the quesited's lord of the 1st and 8th be joined corporally together in the 8th, or be in ☍from the 6th or 8th. These are tokens of his being sick or near to death. See if there be any translation of light between the lord of his ascendant and the 8th, or if the lord of the 8th being in his ascendant, the lord of his ascendant be also in the 8th; or the lord of the 8th in the 4th, and the lord of the 4th in the 8th; these are all tokens that the party is dead; especially if his significator be much afflicted by ill aspects, and the evil planets be angular, and the good ones cadent.

If the lord of his ascendant be separating from ill aspect of the lord of the 6th, the absent party has been lately sick; if from the lord of the 8th, he has been near death, but is not dead, without other striking testimonies, as above, concur. If from the lord of the 12th, he has been troubled with anxiety about arrests or fear of imprisonment; and if his significator be in the 12th, he is in much trouble by means of a private enemy; and if in a fixed sign, and other testimonies of trouble agree, he is in prison. If he separate from the lord of the 2d by ill aspect, he is now suffering by want of money If from the lord of the 7th, he has had some quarrel or contention. If the 9th, trouble on journeys or by law, &c. and so of the other houses. I have ever found that if the lord of his ascendant be in the

9th, 10th, or 11th, though reported dead, he was alive. If you find him alive, and would know when you will hear from or see him, observe in the Ephemeris when the lord of the querent's 11th and the quesited's ascendant come to ✶or △ aspect: about that time news of him will arrive. If the ☽apply to ✶or △ of his significator, then allow a day, week, or month, for each degree she be distant, according as the significators may be placed in angles, succeedent or cadent houses, and the signs be moveable, common, or fixed.[72]

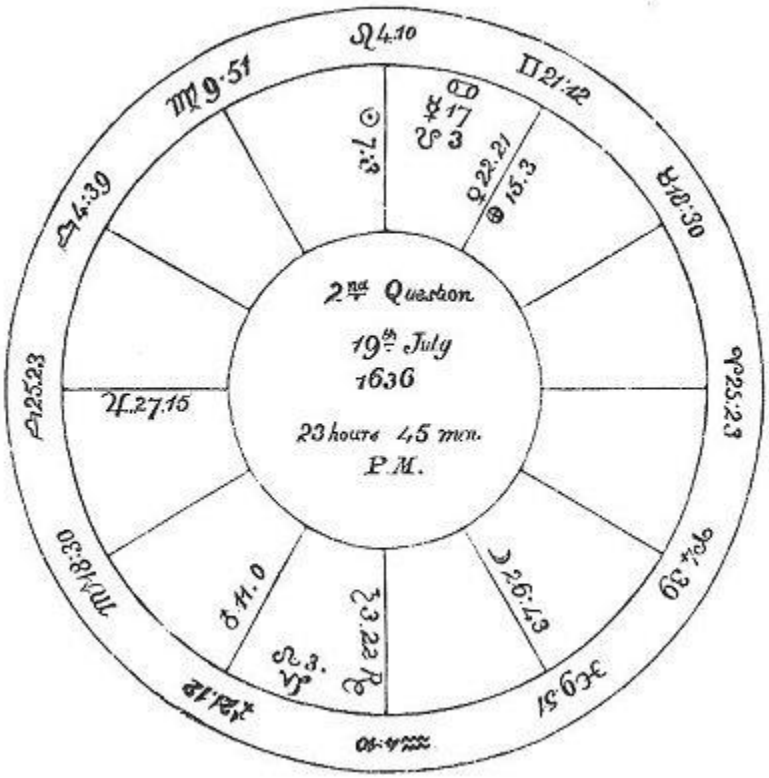

Fig. 3

THE ABOVE FIGURE WAS FOR RESOLUTION OF THE FOLLOWING QUERIES.

1st. *If a Party might be found at Home*?

2d. *A Thing suddenly happening, whether Good or Ill is about to follow*?

3d. *What Moles or Marks the Querent has*?

4th. *If one absent be dead or alive*?

1st QUERY.---*A Woman demanded whether her Son was with his Master at her own House*?

In this figure, ♀ lady of the ascendant denotes the querent. The 5th house is that of children, and describes the matter inquired of. I found ♃, lord of the 5th, youth's significator, in the east angle; one argument that the party was at home at his mother's house. The ☽was applying to ✶of ♄lord of the 4th, the significator of the querent's dwelling: I judged that she would find him there at her coming home: which she did. Now, had I found ♃, lord of the 5th, in the 10th, which house signifies the master; or had ☽separated from ♃, the youth's significator, and then applied to ☉, the ☽being in an angle, I would have judged him at his master's house. I considered further, that the 25th of July following at 2 P.M., the significators of the mother and son (♃and ♀) came to △ aspect; and therefore I judged that she should see him at that time: which she did. For usually about that day when the *significators* come to ✶or △ aspect (which may be seen in the *Ephemeris*), it is very probable that news of, or a letter from, the quesited will arrive, if the distance will permit. But if the querent and quesited be not far asunder, without question they meet on that very day.

Had the party inquired for been a stranger, he would have been denoted by ♂ lord of the 7th; and being in the 2d, a *succeedent* house, I should have said he is not at home, but yet not far from home. And as the sign ♐is eastern, and the 2d house is north east, I should judge him in that direction; and as ♐governs fields, hills, or high grounds, 1 should direct a messenger, if sent for him, to go in that direction, and look for him in such places; hut if it were in a town, as ♐governs stables, fire-places, &c., I should

cause him to be sought near a stable, smith's or butcher's shop, &c., as ♂ delights in such places.

2d QUERY.--*A Thing suddenly happening, whether Good or Ill is about to follow*?

The ☉is here lord of the sign he is in; ♃is lord of ♓, where ☽is; ♀ is lady of the ascendant, and is casting a △ to the ascendant, and is in △ to ♃, and he in the ascendant; from all which we might safely have judged, had this been the time of a sudden accident, or thing done, that it could not have redounded to the querent's injury. But had ♀ been nearer to ☍of ♂, he being in the 2d, I should have of judged that the querent would have received some loss of money shortly, and so of the rest.[73]

3d QUERY.--*What Moles or Marks the Querent has*?

I find 25° of ♎ascending and ♃in the ascendant, which signifies the face. This querent had a wart or mole on the right side of her face, near her mouth; for ♃and ♎are *masculine*. And as the latter degrees of ♎ascend, so the querent confessed a mole on the lower part of her reins towards the haunches. ♈being the sign of the 6th, shewed she had one on the forehead, near the hair, for the cusp of the house is but 4 degrees. ♂ lord of the 6th, being in ♐a masculine sign and under the earth, shewed a mole on the right thigh, towards the middle of it, on the back part, or that part which is not visible. The ☽in 27th degree of ♓, a feminine sign, under the earth, I told her she had one mole under and towards the extremity of her left foot.

The quesited being her son, had ♓for his ascendant, which denoted a mole on the left side of his cheek; and as ♓signifies the foot, so he had one on the left foot a little below the ancle, as few degrees ascend. The 6th from the 5th is the 10th in the figure, which having 4° ♌, shewed that near his right side, below his breast, he had some scar, mole, or mark.

In this way follow the directions of the rule.

4th QUERY.--*Whether one absent be dead or alive*?

In the aforesaid figure, the ascendant ♃therein and ☊ its ruler, as also ☽, are the significators of the party absent. The ascending sign and ♃therein describe his person;[74] and ☽and ☊ shew his condition.

The ☽and ☊ are free from any evil aspect of the lord of the 8th, and a benefit is in the ascendant, and ☊ in the 9th; I should therefore pronounce the absent in health. But ☊ having been recently in ♂to ♂, lord of the 2d and 6th, he had been lately in trouble about money, and also inclined to a feverish state. But by ♃in the ascendant, and in △ to ☊, I should say that medicine, or such a person as is described by ♃, had relieved him. And as ☿lord of the 11th applies to a □of ♃, (both of them in signs of long ascension, which is equivalent to a △)[75] I should judge the querent to have news of the absent about ten weeks from the time of the question, because ☿ wants ten degrees of the □of ♃. If the absent be known to be at a short distance from the quesited, I should have judged that in ten days they should hear of him, because the signs are moveable.[76]

Chapter 24. Of A Ship, And Her Safety Or Destruction

THE ascendant and the ☽signify the ship and cargo; the lord of the ascendant, those that sail in her. If you find a malevolent, having dignities in the 8th, placed in the ascendant, or the lord of the ascendant in the 8th in ill configuration with the lords of the 8th, 12th, 4th, or 6th, or if the ☽be combust, and under the earth, you may judge that the ship is lost, and the men drowned. But if you find reception between the significators at the same time, the ship was wrecked, but some of the crew escaped: if all the preceding significators be free from affliction, then both ship and cargo are safe; and if there be

reception, the more so. If the ascendant and ☽be unfortunate, and the lord of the ascendant fortunate, the ship is lost, but the men saved.

But when the querent demand, of any ship setting forth, and the state of the ship ere she return, and what may be hoped of the voyage; then, behold the *angles* of the figure, and see if the fortunes are therein, and the infortunes remote from angles, cadent, combust, or under the ☉beams, then you may judge the ship will go safe with all her lading. But if you find the infortunes in angles, or succeeding houses, there will chance some hinderance unto the ship. If the infortune be ♄, the vessel will strike ground. If ♂, and he be in an earthy sign, he will signify the same, or very great danger and damage. But if the fortunes cast their benevolent rays to the place of ♄or ♂, and the lords of the angles and of the dispositor of the ☽be free, then the ship shall labour hard, and suffer damage, yet the greater part of the crew and cargo shall be preserved. If ♂ afflict the lords of the angles, and dispositor of ☽, the crew will be in danger by enemies or pirates; and if there be any additional evil configurations among these significators, there will be quarrels on board, thieving, and purloining, &c., with bloodshed: ♄causes thefts only, if so situated, but no bloodshed.

If the signs afflicted by ♄, ♂, ♇(and ♅, if he be ill aspected), be those that signify the vessel's bottom, or parts under water, she springs a leak; if the signs be unfortunate in the midheaven, fiery signs, and ♂ therein, there is danger of lightning or fire; if airy signs and ♀ afflict, damage by high winds. If ♂ be in the 4th, and afflicted, it denotes fire beneath; and if ♅be with him, spontaneous combustion. If the sign be ♊, ♎, or ♒, she may be set on fire by an enemy.

If ♄be in the midheaven, and shew damage, it will be by rotten sails or gear, and bad weather, foul winds, &c. An in-fortune in the ascendant shews damage to the fore part of the vessel; and if the lord of the ascendant be retrograde, it denotes that she will put into some harbour; and if he be in a moveable sign, she returns to the very port she

sailed from. If the lord of the 8th afflict the lord of the 1st, and he in the 8th, the ship will be injured according to the nature of the planet afflicting. If he impedite the ☽'s dispositor, the lord of the ascendant and ☽, it shews the death of the master, and probably of his mate. If it be ⊕ which is afflicted, it foreshews evil to the cargo or a had market; but if ♃, ☌, or ☊be in the second, or assist its lord, or the lord of ⊕, it shews good profit, which will be according to their strength.

If the lords of the ascendant, of the ☽and their dispositors be slow in motion, the voyage will be long; if they be swift, the ship will return quickly. If there be ill aspects between the lord of the 1st and the dispositor of ☽without reception, there will be discord among the seamen, and with them and the owner. If the lord of the ascendant be strongest, the seamen will prevail; but if the lord of the house where ☽is, then the owner. If the dispositor of ⊕ be not with it, or the lord of the 2d be weak, there will be scarcity of provisions, and, if they be in watery signs, of fresh water.

PARTS *of a* Ship *ruled by the* SIGNS.

♈The breast, or bows of the ship.

♉The cutwater, and parts beneath.

♊The rudder, or stem.

♋The bottom, or floor.

♌The upper works.

♍The hold.

♎The parts about the water's edge.

♏The seamen's berths, or cabin.

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♐ The seamen themselves.

♑ The ends of the vessel.

♒ The master, or captain.

♓ The oars, in galleys; the wheels, in steam-vessels; and the sails in others.

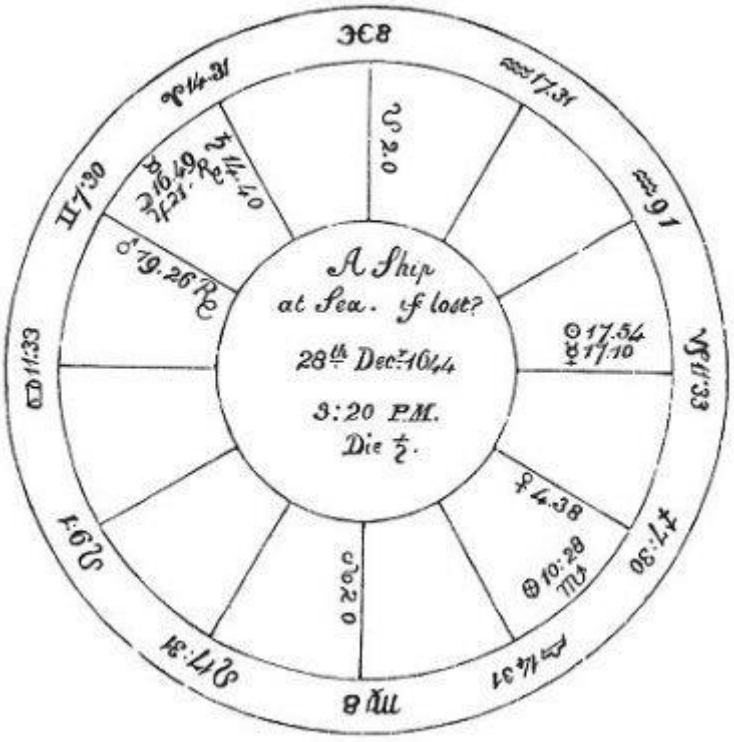

***Fig*. 4.**

AN EXAMPLE OF A SHIP AT SEA.

In December 1644, a merchant, in London, having sent a ship to the coast of Spain to trade, had several times news that his ship was wrecked. He would have given £60 per cent. to insure her, but no insurance company would meddle, no, not upon any terms. A friend of the merchant asked, *What I thought of the ship, if sunk or living*? I gave my opinion, *that the ship was not lost, but did live, and though of late in some danger, yet was now recovered*. My judgment was founded on the considerations in act following:

In the first place, the ascending degrees of Cancer shewed the bulk or body of the ship. I find ♄casts his □from a cardinal sign, out of the 11th house, very near to the ascendant. After his □I find ☽in her exaltation, casting a ✶to the ascendant, interposing her ✶between the ♂aspects of ☿and ☉in the 7th, which otherwise had been dangerous, for all aspects to the ascendant in this judgment are dangerous. From the ascendant afflicted by □of ♄, and presence of fixed stars of his nature, I judged the ship was of ♄'s nature, sluggish, heavy, and not very sound. And ♋, being a weakly sign, made me judge the ship was of such nature; (*and it was so confessed*). From hence, and ♌in the 9th, I judged that the ship had been in some distress in her voyage, occasioned by such casualties as ♄signifies, viz. some leak or damage in or near her breast, as ♈, the sign ♄is in, represents that part.

But as ☽, lady of the ascendant, is in the 11th in her exaltation, in no way impedited, and by a benevolent △ aspect applying to ☉and ☿, and is so near the body of ♃, and as all the significators are above the earth, and no infortunes in angles; I judged the ship, sailors, and officers, were safe, and in good condition. The next QUERY was--

Where the Ship was, upon what Coast, and when any News would come of her?

Herein I considered the ☽was fixed, and in the 11th house; ♉is a southern sign, but in an east quarter of heaven, verging to the south; her application is to △ of ☿, and he in ♑a south sign and west angle; all this made me judge that the ship was *south-west* from London, and upon our own coasts, or near those which lie between Ireland and Wales. I judged her at that time to be in some harbour, because ♉, where ☽is, is fixed, and in the 11th, or house of comfort and relief, and that she was put in to repair. (*It proved that she was an a harbour in the west*.)

Because ☽applied to △ of ☿and ☉, and they in an angle, and all three very swift in motion, and did want but a few minutes of a perfect △, I judged there would be news,

or a certain discovery of the ship in a very short time. The significators being so near a perfect aspect, I said, either that night, or within two days, the news would arrive. (*And so at proved*.) And, observe, that it gave me good encouragement when I saw ⊕ disposed of by ♂, and that ☿, to whom ☽applied, was in reception with ♂; also, that ☽did so well apply to ☉, lord of the 2d, or house of *substance*: a sign that the merchant should gain by that adventure.

Besides, usually when ☽applies to a good aspect of a *retrograde* planet, it brings the matter to an issue one way or other speedily, and when least expected; and it is a general maxim, that if ☽apply to the fortunes, or by good aspect to any planet or planets in metes, it is reason that we hope well, &c.

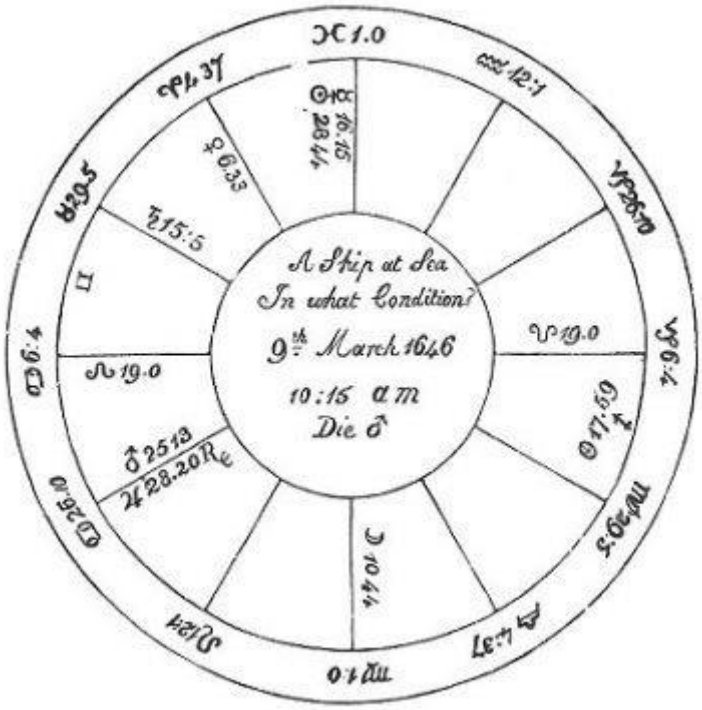

***Fig*. 5.**

EXAMPLE *of another* SHIP *at* SEA.

Here the ascendant and ☽are significators of the ship, and those who sail in her. The ☽lately separated from a ☐of ♄, lord of the 8th and 9th, and afterwards applied to △ of ♄, then to ☍of ☿, lord of the 12th and 4th houses. This shewed that the ship had lately been in danger of shipwreck: and as the ☽had been void of course, so had no news been heard of her; for, after being in ☐of ♄in fixed signs, and at the time in a cadent house, and then not next applying to the good aspect of any benefit planet, but being void of course, and then again continuing her application out of the 4th to ♄, who is still lord of the 8th, though it was by good aspect; and then to ☍of ☿, her dispositor, who is in his detriment and entering combustion; and, ♃, dispositor of ☿, subterranean, and ♂with ☌ and in term of an infortune; and, moreover, as ☌ is in his fall near the cusp of the 2d, I judged, by all this, loss to the merchant. Besides ⊕, is in the 6th disposed by ♃, he retrograde and afflicted in the 2d in no aspect to ⊕, the ☽also in ☐to it, as also ☿. There being so many ill testimonies, I judged he would lose much, if not all, in this ship; and so consequently that she was cast away. (*And so it proved*.) The principal significator in the 4th and afflicted, was a sure sign of the ship sinking.

Chapter 25. Judgments Concerning The Second House

WHETHER *the Querent shall be rich? or have a competent Fortune? By what Means attain it? The time when? and of it shall continue?*

Whoever interrogates, the lord of the ascendant and the ☽are invariably his significators.

Consider the sign on the 2d, its lord, and the planets therein, or aspecting the cusp or its lord; also the ⊕.

If you find the planets all angular or even succeedent, if direct and swift in motion, it is a good sign. If in good houses, direct, and moderately well dignified, it is also a good sign. Those two rules are general.

If the lord of the 1st, the ☽, and lord of the 2d, be joined together, or if they have good aspect to the lord of the 2d, or if ♃or ♇ cast a good aspect to ⊕, or if the lord of the 2d or ☽be in the ascendant, or lord of the 1st in the 2d, or benefits do ascend or be found unafflicted in the 2d, or ☊be there, all these are testimonies that the querent need fear no poverty. As the significators may be strong, and the testimonies numerous, the querent shall be in proportion rich. Always remember to judge according to his condition in life; for, *quoad capax*, it shall happen to the interrogator.

By what Means attain it?

If the lord of the 2d be in the ascendant, he may gain a fortune unexpectedly, (especially if well aspected by ☿, and this planet be strong), or gain it without much labour. If the lord of the 2d or the Moon promise substance by any mutual aspect, observe from what house the aspect is, or what house ☽rules; if neither of these promise substance, see what house ⊕ and its dispositor be in.

If the planet assisting be in the ascendant, the querent will gain by his own industry, and, if he be a mechanic, by his own labour, care, or invention. But if the assisting planet be not lord of the 2d, he will gain by well managing his own affairs, estate, &c.; or by such things as are of the nature of that planet, the sign he is in being also considered.

If the lord of the 2d be in the 2d, he shall profit by his own industry. If the lord of the 3d. benefit the lord of the 2d, ⊕, or other significators of wealth, he will be assisted by his neighbours, brethren, or kindred; or by removing to that quarter from whence the lord of the 3d throws the aspect.

The lord of the 4th gives wealth by means of his father, or some aged person; or by taking lands, or purchasing houses, &c.; or by well managing money lent him by his kindred or neighbours; or property left him by his ancestors.

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The lord of the 5th promises gain by cards or other gambling; or stock jobbing; or by holding office as an ambassador or messenger. If a man of low quality ask, by keeping an inn, &c., or being porter to some institution, or connected with theatres, &c., and such things as the 5th house denotes. It may be by well managing his father's estate, or receiving something thereout.

The lord of the 6th gives gain by servants, dealing in small cattle, &c., or by turning surgeon, &c., if capable.

The lord of the 7th gives gain by means of a wife, by the sword or warfare, by contracting bargains in his way of business, or by gaining some lawsuit, &c.

The lord of the 8th or planet therein denotes legacies, or a wife's portion, which may be unexpected at the time, (especially if ♅assist), or he may suddenly go and settle in some country wherein he shall thrive and grow rich.

The lord of the 9th, &c., gives property by the wife's relations, or some neighbour of her's when he did marry; or some clergyman or lawyer shall befriend him; or if ♋or ♓be in the 9th, he may thrive by a distant sea voyage. But if an earthy sign be there, he may gain by removing to the part signified by that sign, and by dealing in the commodities belonging to that country, &c.

The lord of the 10th, &c. promises gain by the service of the king or some great man, holding office, &c. If the querent be young and of small fortune, let him learn some trade or business that may be shewn by the sign and planet in the 10th.

The 11th and its lord denote unexpected benefit by friends, or the employment of some king, nobleman or other great person.

If the fortunate aspect be cast from the 12th or by its lord, the querent will advance his fortune by great cattle or horse-races; or if the sign be human, that is, ♊or ♒, by

means of prisons, &c., such as being governor or turnkey of a jail, a sheriff's officer, &c. If the sign be ♈, ♉, or ♑, by cattle; if ♍, by corn. Herein mix your judgment with reason.

The most assured testimonies of riches are if the lords of the 1st, 2d, and ♃be joined in the 2d, 1st, 10th, 7th, 4th, or 11th houses; or if not in ☌, if they apply by ✶or △ and be in mutual reception. If they apply by □or ☍, yet have reception, the querent will gain wealth, though with much labour and pains.

Signs of Poverty, and its Cause.

If you find that the querent will *not* be rich, and he desire to know *why*, that he may the better order his affairs and be wary of such difficulties as may threaten, then carefully observe as follows. The planet afflicting most the lords of the 2d and 1st, the ☽, ⊕, or their dispositors, or the cusp of the 2d or planet therein, shews the cause. If the lord of the 1st, then the querent himself is the cause, and the house in which he is found may shew how. The lord of the 2d shews want of money or sufficient capital to set up with. The lord of the 3d shews that his kindred or neighbours will oppose him much, or undersell him, &c. And in this way you may go through the twelve houses, judging the reverse of what you were instructed when the aspects, &c. were good.

Caution.--If the lord of the 2d or the dispositor of ⊕ be infortunes, yet be strong and well aspected, they may denote gain as well as ♃or ☋, though with less satisfaction and more painstaking. Also ♃or ☋ being afflicted, may obstruct as well as any other; for every planet must do the work for which he is by Providence assigned. Again, wherever ♉may be found, he denotes evil by that house, as if in the 6th, by evil servants, sickness, &c.

If the querent shall obtain the Substance he hath lent, or which he demands?

The lord of the ascendant and ☽are the querent's significators, the lord of the 2d denotes his substance.[77]

The 7th and its lord denote the person of whom he means to ask the money, and the 8th and its lord, &c., his property. Observe whether the lord of the ascendant or ☽be joined with the significator of the quesited's property, or be in good aspect with such significator. If this be so, and that significator be a fortune or very strong, he shall assuredly receive the money. If he be an infortune, and there be reception between him and the querent's significator, the querent will also receive his money, &c.; but if the quesited's significator be an evil planet, and there be no reception, he will hardly ever gain his desire, or with so much delay and difficulty, he would rather wish the thing undone.

In like manner if the lord of the 8th be in the 2d with reception, it is a sign he shall gain his money, &c. But if the lord of the 7th or 8th be in the 1st or 2d without reception with the querent's significators or lord of the 2d, he shall not have his desire, but may rather expect prejudice in the thing demanded.

If the lord of the 1st and ☽be joined to a fortune that has dignity in the sign ascending or *intercepted* in the *ascendant*, the matter will be effected; or if joined to an infortune having such dignity, *with reception*, the business will be dispatched. Or, if the significators be joined to a fortune in the 10th or 11th, though without reception, the matter shall be perfected.

If one shall acquire Gain, or Profit, Salary, &c., from the Government, or any Nobleman, or Person of high Rank, &c.?

This question will serve for any other of the like nature, where the querent is much inferior in rank to the person he looks to for accomplishing his desires.

The ascendant, its lord and the ☽, represent the querent as usual, and the 10th and its lord the quesited. The 2d is the house of property for the querent, and the 11th for the person inquired about.

If you find the lord of the 1st or the ☽joined to the lord of the 11th, or to any fortune in the 11th, not afflicted, you may affirm that the querent shall obtain his money, salary, or debt, &c. Or if it happen that the ☽and lord of the ascendant be joined to an evil planet with reception, he may expect to succeed, but not without much solicitation, and many weary efforts. If there be any evil aspect between the significators, one being an infortune and without reception, the querent will never gain what he desires.

In this question be very careful to observe the planets' true essential dignities, and their mutual receptions, and by which of their mutual dignities they receive each other.[78]

Of the Time when the aforesaid Events treated of in this Chapter may happen.

Herein diligently note to what planet the lord of the ascendant or ☽applies, by ☌or aspect. Consider how many degrees are wanting of the perfect aspect or ☌, and say that it shall be as many days as there are degrees, if they be *both in cadent houses*; if both in *succeedent* houses, so many weeks; if both in *angles*, so many months. But if the matter cannot possibly be effected in days or weeks, but requires much time, instead of months say years, and of weeks say months, and of days say weeks, &c. And if one planet be in an angle, and the other in a succeedent house, they shall signify months; one succeedent, and the other cadent, they denote weeks; and when one be angular and the other cadent, months.[79]

Some of the ancients have said, that if, at the time of a question, the planet which signifies the perfection of the thing demanded be in the same sign with the lord of the ascendant, the matter shall be brought to conclusion when they come to bodily conjunction; if the lord of the ascendant be the heavier planet, and whether there he

reception or not. But if the lord of the ascendant be the lighter planet, not without reception, unless they be in an angle when the conjunction hall be effected, or that the other planet be in one of his own houses, especially that which is termed his joy.[80]

I have observed that reception by house, though the aspect were a ☐, or even ☍, brings things to perfection; but that other receptions avail not in this case.

As regards the time when; I find that if a fortune, or the ☽, or lord of the thing quesited, be in the ascendant, and have any essential dignities therein, the number of degrees between the planet and the cusp of the ascendant denote the time; days, if a moveable sign, and the business capable of being quickly perfected; months, or years, according to the sign and quality of the business.

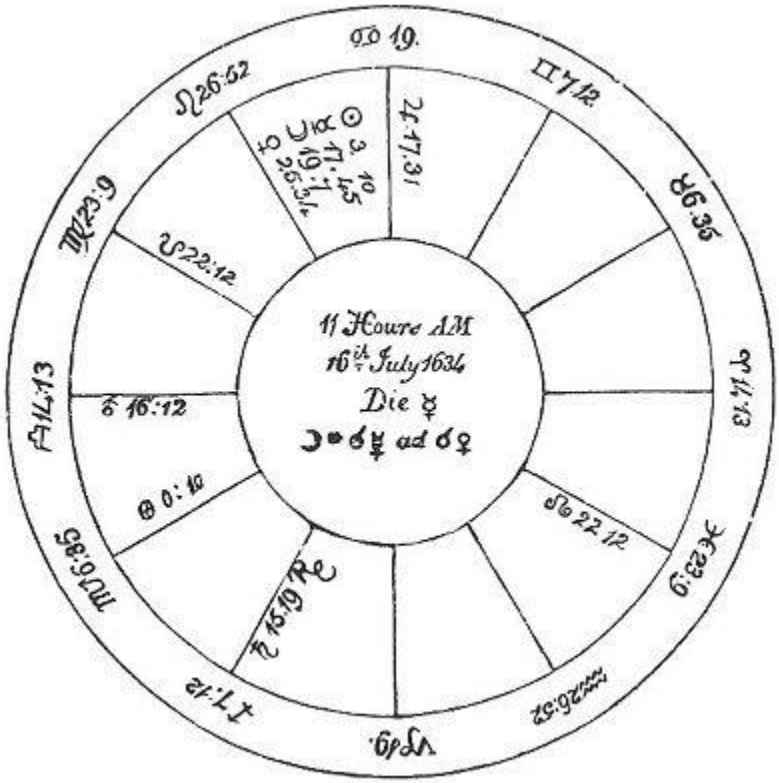

***Fig*. 6.**

EXAMPLE.--A tradesman of *London*, in the year 1634, propounded the following queries. I have seen the experience of my judgment.

QUERIES.--1st. *If he should be Rich, or subsist himself without Marriage*?

2d. *By what Means he should attain Wealth*?

3d. *The Time when*?

4th. *If it would continue*?

1st QUERY.--*If the Querent should be Rich, or subsist himself without Marriage*.

I first considered the general disposition of the planets, and found the major number, especially the fortunes, swift in motion, well posited, and not afflicted. Also, that ☌, lady of the ascendant, was near *Cor Leonis*, a star of great virtue and influence; ☽increasing in light, ♃almost culminating. Hence I formed this general judgment, that he should live in good rank and quality among his neighbours, &c. (*quoad capax*) according to his calling. Secondly, whether he should be rich or not? I considered that the lord of the 2d is in the ascendant, and being also lord of ⊕, is near *Spica Virgina*, in 18° ♎.[81] Then ♃(a general significator of wealth) was in his exaltation and angular, casting his □to the cusp of the ascendant, which □in signs of long ascension we usually repute a △.[82] Also, that ☽separated from a ✶of ♂, lord of the 2d, &c., significator of the thing demanded, and ☿of ☿, and applied to ☿♀, the querent's significator; transferring the light and virtue of both ♂ and ☌, to the proper significator of the querent. The dispositor of ☽is ☉, and he strong and powerful, the ⊕ in a fixed sign, and in the terms of ♂; from all which I judged that the querent would acquire an estate, and have a competent fortune; but as it is signified by an infortune, that he would attain it by labour and care. (*And so to this day he hath*.) And as ♂, lord of the 7th (the house of marriage), hath the most material

signification of the thing demanded, viz. wealth, I advised him to marry, and said, that without marriage he should not so well subsist.

2d QUERY.--*By what Means he should attain Riches*?

In this scheme, ♂ being the planet signifying wealth, as lord of the ⊕ and the second house, and placed in the ascendant, signifies property got by the querent's own industry. And as ♂ is lord of the 7th, I said, he would marry a woman who would produce him a good fortune; and it more than he could well look for, and of a settled nature; which I judged by ♀, lady of his wife's house of property, being so well fortified. And as ☽was lady of the 10th, (house of trade), and was transferring the light of ☿and ♂ to ♀ his significator, I advised him to be diligent in his profession, and that he would thereby gain a good estate. (*He has since had a good fortune with his wife, money, and land, and been very successful in trade*). Jupiter, so strong in the 10th, was an infallible sign (according to natural causes) of plenty of trade, or a gainful profession.

3d QUERY.--*The Time when*?

All the significators oriental, and five planets swift in motion, promise property in a short time after the question; and ♂, the chief significator of the thing inquired after, being swift in motion, argues the same. The distance from the ascendant to ♂ being about two degrees, signified about two years, at which time he had a portion with his wife. The ☽wanted 6° 27′ of her ☌with ♀: hence I concluded that about 1640 he should have very great trading, and live in excellent repute; and as ♀ is seated on the cusp of the 11th, (or house of friends), that he should have many good friends, &c., by whom he should increase his estate.

4th QUERY.--*If the Querent should continue rich*?

This I resolved by the cusp of the 2d, which being a fixed sign and ⊕ therein, and ♃in his exaltation and angular, and ☊, the dispositor of ♂, being in ♌, a fixed sign, as also the ☽in ♌, all implied that he should continue in a plentiful estate, and that the riches God should bless him with would be permanent, and that he should never be reduced to want or poverty.

There was only one thing arising out of the figure, of which I cautioned him. The ☉, lord of the 11th, beholds ⊕ by □, as also the cusp of the 2d; and as ☉here signifies friends, I exhorted him to avoid confiding in solar men, though of much friendship with him. In all such cases describe the planet afflicting, and you give caution sufficient.[83]

Chapter 26. Of The Third House, Viz. Of Brethren, Sisters, Kindred, News, Short Journeys, Etc

THE chief, but not the only, questions regarding this house are those concerning brethren, cousins, or neighbours, and short journeys.

QUERY.--*Shall the Querent agree well with his Brother or Neighbour*?

The querent has the time significators; the quesited is shewn by the lord of the 3d, the cusp of the 3d, and the planets therein. If the lord of the 3d be a benevolent planet, or be in the ascendant, or there be a fortune in the 3d, or the respective lords be in good aspect or mutual reception, or the lord of the ascendant throw a good aspect to the cusp of the 3d, no doubt unity will endure between the parties. If the evil planets, or ♇, be found in the 3d, unless very well dignified and aspected, it denotes discord, and the querent may expect little good from the quesited. If there be evil aspects between their significators, the same judgment holds; and if the significators are afflicted by being peregrine, retrograde, or combust, it shews hatred or untoward conduct.

♄or ♉in the third, shews the neighbours are ill-mannered and the kindred selfish; if ♂ be there, the neighbours are dishonest, and the relations treacherous. If they be out of their dignities, these evils are increased; and if ill planets be in the ascendant, or ♉be there, the querent is himself ill conducted.

Of an absent Brother?

The 1st, and its lord and ☽, are for the querent; the 3d for the quesited; and the 4th, his house of substance, &c.

Consider in what condition the lord of the 3d is, in what house, and how aspected. If he be in the 3d, free from evil aspects of the infortunes, you may judge that the absent brother is in health. If he be in his own house, but afflicted by the evil planets, without reception, judge that he is in health, but in great perplexity and. sorrow; but if they so aspect him with reception, say, that he is in distress, but that he will shortly evade it, and rid himself of his troubles. If the fortunes aspect him by ✶or △ without reception, or by □or ☌with reception, you may judge him to be in health, and well contented; and if they aspect him by ✶or △, and there be reception, you may tell the querent that his brother is healthy and happy, and wants nothing in this world.

If the lord of the 3d be in the 4th, without aspects of the malefics, he is endeavouring to get property in the country where he then lives. If he be in the 5th, and joined by ☌, or good aspect to the lord of the 5th, if the latter be not much afflicted, he is healthy, jocund, and merry, and likes the society he is in. If it be a fortune, and there be a reception between the lords of the two houses, the 3d and 5th (his 3d), you are assured of his happy condition. Yet if it be a malefic, or he be in evil aspect with a malefic in the 5th, without reception, or if he be void of course while in the 5th. you may judge that he is restless, and discontented in his present abode. Generally, if he be afflicted in any but the 6th, 8th, or 12th houses, he is not very comfortable, yet not in ill health.

If he be in the 8th, and well aspected by a fortune, he is not in danger, yet he is indisposed. If he be joined to evil planets by bad aspects out of the 6th, he is in an infirm and dangerous state. The same, if the lord of his 6th be in the 3d, unless he have dignities therein. If, in this case, the lord of the 3d be ☌with the lord of the 8th, or entering combustion at the same time, with other testimonies of his being ill, there is reason to fear that he will die.

If you find his significator in the 7th, he is still in the country he went to, and indifferently well.

If the lord of the 3d be in the 8th, he apprehends that he shall die; and there is great fear of his death if his significator be combust, in ☌with the lord of the 8th, or afflicted by evil planets.

If his significator be in the 9th, he is gone to some country further off than when he first went, or is forming some clerical, regal, or scientific connexion, or is employed travelling.

If he be in the 10th, and well aspected by the fortunes, especially if with reception, he has got some good employment, or office, in the country to which he is gone. If combust and afflicted, there is fear that he is dead.

If he be in the eleventh, and joined to the lord of the 11th, it denotes he is well situated, with his friends, and happy; though if evil planets afflict him, he is not so well pleased with his present condition.

If he be in the 12th, and well aspected, he is engaged with horses or cattle, &c., keeping an inn, or is turned grazier, &c. If ill aspected in this or the 2d house, he is in trouble, and if in a fixed sign, probably in prison; yet, if his significator be retrograde, he will manage to escape. If in the ascendant, tie is very pleasantly situated; and, unless ill aspected, he is much respected.

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If any other person than a brother be inquired of, his condition may be known by applying the foregoing rules to that person's significator. As, for example, if the quesited be the querent's father, let the lord of the 5th (the 2d from the 4th) be considered for his substance. And if the quesited be a friend, let the 11th house represent him, and then the 12th will be his 2d, or house of property; the 8th will be his 10th, or house of honour, &c.; and so all round the 12 houses. But understand that, though every house has its 6th, 8th, and 12th, yet of every person inquired after, the 6th house of the figure shall signify his sickness, the 8th his death, the 12th his imprisonment.

Of Reports, News, Rumours, &c. whether true or false? and whether importing Good or Evil?

That which I found true by experience (in our late sad times of war) was this: if I found ☽in the ascendant, 10th, 11th, or 3d house, separating by benevolent aspect from any planet, and then applying by good aspect to the lord of the 1st; I say, I found the report or rumour true, but always tending to the good of the parliament, let the report be good or ill. But if ☽applied to the lord of the 7th by any good aspect, I was sure we had the worst, and our enemies the victory. If the ☽was void of course, the news proved of no moment, usually vain and false, and soon contradicted. If the ☽and ☿were in □or ☌, without reception, and neither casting a good aspect to the degree ascending, the news was *false*, and reported purposely to alarm us.

The time of erecting the figure was ever the hour when I first heard the rumour; but, if another propounded it, then that very minute when it was first proposed.

If, on hearing of any matter, you desire to know whether it will be prejudicial to you or not, observe whether ♄or ☠ be in the ascendant, or ☽or ☿in any of their essential dignities, in ✶or △ to the lord of the 11th; you may then judge that the party inquiring shall receive no damage thereby. But if the lord of the 6th, 8th, or 12th, be in the

ascendant, or in evil aspect to the lord of the ascendant, or a malefic retrograde in the ascendant, or afflicting its lord, or the degree ascending, then the querent will be prejudiced by the matter. But if it concern the public, some damage has happened to their ministers or friends. In this case, if ♄denote the evil, he shews plundering, loss of corn, or cattle, &c.; ♂ causes straggling parties to be cut off, and military violence, bloodshed, &c.; ☿the miscarriage of letters, or evil to the literary community, messengers, &c.; ☉causes distress to the king, or some chief or leader; ♀ causes ill to some gentlemen or their friends. The ☽denotes violence by mobs, and if she be afflicted, injuries are done to the people.

If Rumours be true or false, according to the ANCIENTS.

If the lord of the ascendant, the moon, or her dispositor, be in an angle or a fixed sign, and in good aspect to the fortunes, or the ☉, you may judge the rumour is true. If they be in moveable signs, cadent, and ill aspected by the infortunes, judge the reverse; and consider the majority of the testimonies. When the angles of the figure, the ☽, and ☿, are in fixed signs, and these latter separate from infortunes and apply to fortunes, the rumour is true. Evil rumours hold true, or will be in some way verified, if the angles of the 4th and 10th are fixed, and the ☽therein. If you have evil news, yet if either fortune be in the ascendant, or the ☽fortunate, it is a strong argument that the rumours are false, and that they will turn rather to good than evil. Mercury, or the planet to whom he or ☽applies, being retrograde or afflicted, or if either of these two be lord of the ascendant, it signifies that the rumour shall vanish to nothing, or shall be converted to good. If the lord of the ascendant be under the beams of ☉ [84], the matter is kept secret, and few shall ever know the truth.

Of Counsel or Advice given by a Neighbour, or Relation, Friend, &c.

Erect the figure when first the party begins to break their mind, and you shall know whether they really wish you well or not, and whether it be good to follow their advice.

If there be in the 10th house either ☉, ♃, ⚲, or ☊, or, or if ☽apply by good aspect to the lord of the ascendant, judge they come with an honest heart, and the advice is intended for your good. If ☿, ♄, ♂, or ♇be there, or if ☽apply by evil aspect, they intend deceitfully. *Haly* affirms, that if the sign ascending be moveable, and the ☽and lord of the ascendant are both in moveable signs, the party comes to deceive.[85]

Of short Journeys, whether good to go or not?

By a short journey, I mean such distances as a person may go and come back in a day or two. Consider the lord of the ascendant, and whether he be swift in motion, and in the 3d, or in any of the dignities of the lord of that house; or in good aspect with its lord, or a planet therein; or if the ☽apply to such aspect, or be in the 3d, or cast her ✶or △ to the degree ascending, or be swift in motion; all these are arguments that the party shall go his short journey, and have success. The part of heaven in which the place lies to which he would go is known by the situation of ☽, the sign on the cusp of the 3d, or its lord, whichever may be strongest in essential dignities. If the chief significator be in a northern sign, he goes north, and so of the rest.

EXAMPLES.

In November 1645, a citizen of *London* having gone into the west of England, and no news being heard of him for many weeks, his brother, with great importunity, moved me to give my judgment concerning these particulars.

The figure, erected at the moment of the question, is on the following page; and the particulars of the judgment on each of three queries, which were put on the occasion will be found to follow.

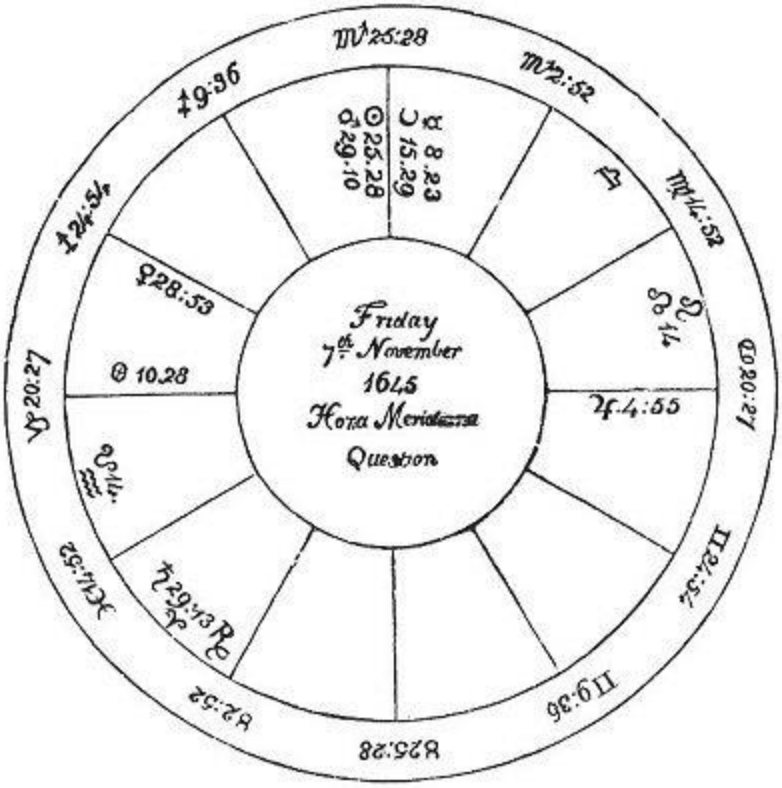

Fig 7

QUESTIONS REGARDING AN ABSENT BROTHER.

1st.--*If Living or Dead? if Dead, whether Killed by Soldiers? for at this time our miserable kingdom was full of soldiers.*

2d.--*If Living, when he should hear of him? and where he was*?

3d.--*When he should come Home*?

1st QUERY.--*If Living or Dea*d?

The ascendant doth here represent the shape and form of him who asked the question, with consideration had to ♄, lord of the sign. The querent was lean, spare of body, and a real *saturnine* man, &c.

♉is the ascendant of the 3d house, and ♀ being lady thereof, represented the absent brother.

♀, the significator of the quesited, being noways afflicted, either by ☿, lord of the 8th in the figure, or ♂, lord of the quesited's 8th: and the separation of the ☽being good, *viz*. a △ of ♃, and ☌of ☿, who is in good aspect to ♃, and going to ☌of ☉on the cusp of the midheaven, I judged the absent brother was alive, and had had no manner of accident, but was in good health.

2d QUERY.--*When to should hear of him*?

♀ lady of the 3d applies to a friendly △ of ♄, lord of the ascendant, and ♄being retrograde, applies also to the aspect of ♀; a very good argument that the querent should hear news of his brother very suddenly. And if you look into the *Ephemeris* for 7th November, 1645, you will find that, about four o'clock on that very day, the △ aspect between ♀ and ♄was formed. I therefore advised the querent to go to the carriers of those countries where he knew his brother had been, and ask when they saw the quesited; for I told him that it was probable that he should hear of him that very day. (*He has since confidently a firmed, that about the very moment of time, viz., about four, a carrier came casually where he was, and informed him that his brother was living, and in health*.)

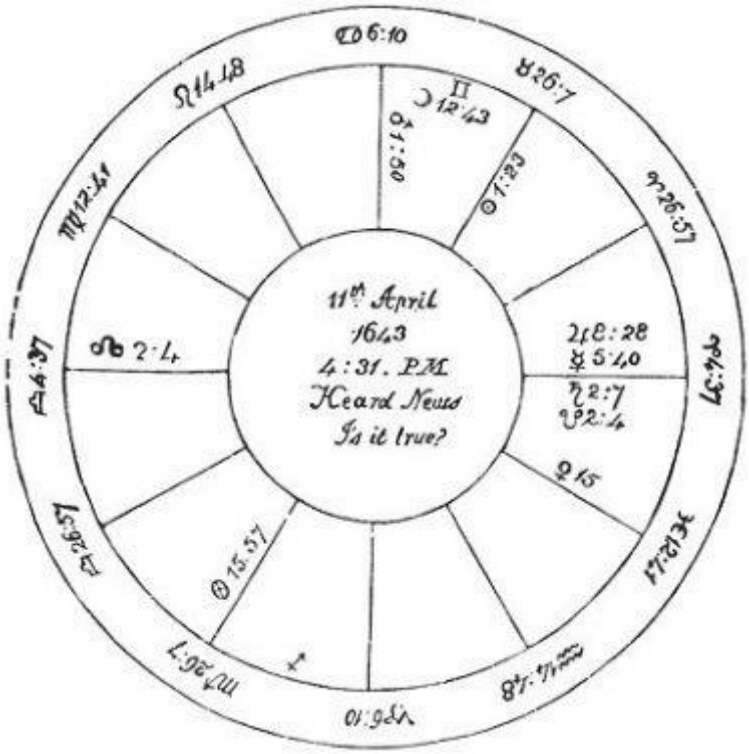

***Fig*. 8**

Where he was?

His journey was into the *west*. At time of the question I find ♀, his significator, leaving ♐, a north-east sign, and entering ♑, a south sign; whereon I judged he was in the south-east part of the county unto which he went. And as ♀ was not far out of the ascendant, and was in the oriental quarter of heaven, that he was not above one oar two days' journey from London; and as ♀ was leaving ♐, and entering a sign in which she has dignities by *triplicity* and *term*, I judged the man was leaving the country where he had no possession or habitation, and was coming to his own house in London, where he had good property. As ♀ wanted one degree of getting out of the sign, I judged he would be at home in less than *one week*; for ♐ is a common sign, and one degree therein in this question might well denote one week. He came home on the following *Tuesday*, when ☽ came to ☌ ♀, she being then got into ♑, in her

own *term* and *diurnal triplicity*. The two significators being in △, these two brothers always did, and do, live very amicably together.

QUERY.--*If a Rumour or Report were true or not*?

In 1643, his Majesty's army being then *rampant*, several reports were given out that his Majesty had taken Cambridge, &c.: a well-affected person inquired of me if the news were true or false? whereupon I erected this figure, and gave judgment:--"*All that we heard was untruth, and that the town neither was or should be taken by him or his forces*."

A Report that Cambridge was taken by the King's Forces; if true?

First, I considered that the angles were all moveable, and that the evil ♂ vitiated the cusp of the 10th, and ♄that of the 7th; one argument that the report was false.

Secondly, the ☽was cadent, and in ♊, a sign wherein she is very weak: a second such argument.

Thirdly, the ☊on the cusp of the ascendant was a sign of good to the Parliament, for the first house signified that honourable society. ☌, lady of the ascendant, was in her exaltation, but ♂, lord of the 7th, our enemies, in his fall, viz. ♋, and afflicted by □of ♄. The ☽separating from ♃in the 7th, and transferring his light to ☌, gave reason to expect that there would come good to our side by this report or rumour, and no benefit to the enemy. The □of ♄and ♂ assured me that our enemies were so full of division and treason, and so thwarting one the other's designs, that no good should come unto them by this report. And so, in short, I judged that Cambridge was not taken, and that what we heard was false.[86]

Had this question been, *Whether the querent would have brethren or not*? then you should judge as follows:

The sign on the 3rd ♏is fruitful; ♋, the sign in which the lord of the 3d is found, is fruitful, and the ☽applies to ♌; signs that the querent might expect both, but chiefly sisters, as the signs are mostly feminine.

Chapter 27. Of The Fourth House, And Judgments Depending Thereon

This is the House of Parents, Lands, Tenements, Cities, Towns, Villages, Farms, Castles, Treasure found, &c., or of any Thing hidden in the ground; also of the Grave.

RULE.--*To Find a Thing hidden or mislaid*.

BE careful to consider to whom the thing hidden, &c. may belong: if the goods did belong to the querent, take the lord of the 2d; but if to his brother or sister, regard the lord of the 4th; if to his father, the lord of the 5th; if to his mother, the lord of the 11th, and so of other persons; if to a stranger to the querent, or one who is no relation, take the lord of the 8th. If you find the lord of the house of property is in any angle, judge the thing missing is within the house of him who is the owner. And if the lord of the property is in the ascendant, or disposed of by the lord of the ascendant, by house, or in the same sign with him, say it is in that part of the house wherein he most frequents, or lays up his goods, or such things as he most delights in. But if the lord of the quesited's property be in the 10th, it is then in his shop, if he keep one, or, if he be a gentleman, in his dining-room; if he be a farmer, it is in the common room of the residence, or first room after you enter the house. If the lord of the property be in the 7th, it is then in that part where the quesited's wife or his maid-servants have most to do. If in the 4th, it is where the most aged of the house lodges, or formerly did most frequent; or in the middle of the house, or in the most ancient part, or where his father or some elderly man lodged. The nature and quality of the place are known by the signs the significators

are in; for it the sign of the second be *airy*, or the greater part of the significators, including the sign where ⊕ is, be the same, the thing is hid in the eaves, or the upper part of the room where it is, or on high from the ground; and if the thing be in an orchard or garden, it is higher than the ground, or upon some tree, line, &c., or is on the highest hill or part of the ground. If the said significators be strong, and in *watery* signs, it is in the dairy, or washhouse, brewhouse, or near water. If they be in *fiery* signs, it is near the chimney, or the walls of the house, or where iron is found. If in *earthy* signs, the thing is on the ground or earth, or near some pavement or floor; and if the thing lost be out of the house, it will be found near the bridge, stile, or gate, where people come into the grounds.

If the significator be going out of one sign into another, the thing is behind something, or fallen between two rooms, or near the threshold; and it is higher or lower, according to the sign being airy, &c.

If a thing be lost, and not stolen, consider the following points:

1. The sign ascending, its nature, and the quarter of heaven it denotes.

2 The sign the lord of the ascendant is in.

3. The sign of the 4th house.

4. The sign the lord of the 4th is in.

5. The sign the ☽is in.

6. The sign of the 2d house.

7. The sign the lord of the 2d is in.

8. The sign ⊕ is in.

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Then examine the greater number of testimonies to discover what quarter of heaven the thing is in, as regards the parts of the house. Having found the bearing, or point of the compass, observe the nature of the sign, viz. *airy* signs, above ground; *fiery*, near a wall, or partition; *earthy*, on the floor; *watery*, near a moist place in the room, &c.

Bearing by Compass of the Signs.

♈East ♌E. by North ♐E. by South

♎West ♊W. by South ♒W. by North

♋North ♏N. by East ♓N. by West

♑South ♉S. by East ♍S. by West.

Of Buying and Selling Lands, Houses, Farms, &c.

The ascendant, its lord, and the ☽, are for the buyer, and the 7th, its lord, and planets therein, for the seller. The 4th its lord, and planets therein, signify the land, or house, &c. And the 10th house, its lord, and planets therein, signify the price; that is, whether it will be sold cheap or dear.

If you find the lords of the 1st and 7th in good aspect, and the lord of the 7th apply by good aspect (or if by evil aspect with reception) to the lord of the ascendant, you may judge the seller has good will to the buyer; and if they are at all dignified, the purchase will be effected; but if the aspect be evil, there will be much bargaining and dispute before all be settled.

If the lord of the ascendant, or ☽, apply to the lord of the 4th, or this planet apply to them, or if they be in each other's places, viz. the lord of the 1st, or ☽, in the 4th, or the lord of the 4th in the ascendant, and there be any reception, the purchase will be effected.

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But if there be no dwelling in houses as above, yet the ☽transfer the light of the lord of the 4th to the lord of the ascendant, the bargain will be concluded, though by brokers or agents, rather than by the principals.

If none of the above rules hold, there will be no bargain made.

Of the Quality of the Land or Houses, &c.

If you find the infortunes in the 4th, especially if they be peregrine, or the cord of the 4th retrograde or afflicted, it will never continue long with the buyer's posterity, or benefit him.

But if ♃, ♇, or ☊, be in the 4th, or the lord of the 4th be strong and well aspected, the purchaser may expect good success with the property; and if a fixed sign be in the 4th, it will continue in the family of the purchaser.

If an infortune possess the ascendant, the tenants or occupiers are evil and deceitful, and will give trouble. If a fortune be there, or ☊, judge the reverse. In the former case, if the evil planet be retrograde, the tenants will decamp without paying their rent, or will throw up their leases.

If in the 10th house there be a fortune, and it direct, the timber will he profitable, or the house will let well. If it be retrograde, there are many trees, but they not profitable. If there be an infortune direct, there are few trees, or the house will not let well; and if he be retrograde, the timber will be stolen, or the rent will be either stolen after payment, or no payment be well and truly made. If there be no planet in the 10th, consider the lord of the house, and, as he may be strong or weak, judge the result of the profits, whether by timber, &c., or by letting the house, &c. But the angle of the 7th must be considered in like manner, to judge the quality of the grass, corn, or herbage, &c. As regards the description of the ground, look to the 4th house; and if you find a fiery sign

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on its cusp, the ground is in general hilly, dry, and hard; the more so, if the lord of the 4th be in a fiery sign, viz. ♈, ♌, ♐. If there be an earthy sign on the cusp, the ground is plain, level and good pasture land, or for tillage. If there be an airy sign thereon, the ground is of a mixed nature, part hilly and part plain, partly good and partly bad. If the sign be watery, then there is plenty of water, a brook, or rivulet, &c., thereon. And if an infortune be in the 4th, and retrograde or peregrine, the land will partake greatly of the nature of that infortune; as if ♏be the sign, and ♄in it, the land is marshy or boggy, and full of rushes; if he be afflicted, so much worse is the land. And if the land lie near the sea, you may fear an overflow, or that the banks are damaged, &c. If ♄be in the 4th in a fiery sign, the land is barren, and wants water; if he be afflicted, it is utterly stony and worthless. If ♄be there in an airy sign, the land is defective; and if he be afflicted, especially in ♊, the management of it has been bad and unthrifty. If he be there in an earthy sign, the land is tolerably good, but heavy, clay land; and if he be afflicted, the farmers are dull, and too poor to manage it well.

In like way judge of the standing of a house or building: if it be a watery sign, there will be much damp; and if ♄be there in ♏, it is overrun with rats.

Of the Cheapness or Dearness of the Land or Houses, &c.

This is known by the lord of the 10th; for if he be angular and strong, the price will be high, and the seller will stand upon his terms; but if he be weak, cadent, afflicted, &c., the price will not rise high.

If it be good for the Querent to take or lease the House, Farm, or Land, &c.

The 10th house, &c., will herein shew the profit or advantage to be made by the undertaking, having regard also to the usual significators of property, viz. the lord of the 2d, and ⊕, &c.

The 4th house will shew the end of the matter as regards the taking the property.

If there be a fortune ascending, or ⊕ be in the ascendant, or the lord of the ascendant be there, or be in ✶, or △ to the degree on the cusp and not afflicted, the querent will take the house or farm, &c., and find it a good bargain.

If an infortune ascend, the querent will not take the property; or if he have already taken it, he has no mind to it, and will quickly put it off to another party.

If you find the lord of the 7th in the 7th, or casting a good aspect to its cusp, or there be benefics therein, the man will keep his word in the bargain, but he will profit by it more than the querent.

If an infortune be in the 7th and not lord of the 7th, have great care of the covenants or agreements between you; for the landlord will be too hard for you, as he minds nothing but his own ends in the matter.

Consider the 10th house; and if a fortune be there or behold its cusp by good aspect, the parties, notwithstanding some rubs, will proceed in their bargain, and the land, &c. will be let to the querent.

If you find an infortune in or in evil aspect to the 10th, the bargain will be broken off. If it be land, they differ about the timber, &c., or upon the erecting of some new buildings; and if the thing be a house, &c., they differ about the repairs.

As to the end of the matter, see to the 4th house. If fortunes be there, or the lord of the 4th behold the cusp favourably, it will end well, and both parties will be pleased; but if an infortune be there, or the lord of the house aspect it by □or ☍, the whole matter will end ill, and will please neither party.

QUERY.--*Shall the Querent enjoy the Estate of his Father*?

If in this question you find the lords of the 2d and 5th in reception and in each other's houses, there is no doubt that the querent shall have a competent fortune out of his father' estate. But if the lord of the father's property be retrograde or afflicted, then some part of the estate intended for the querent will be wasted or otherwise disposed of. If you would know why or how, see what planet impedites the lord of the 5th, and what house he is lord of. If it be the lord of the 6th, it may be one of the father's brothers, or sisters, or neighbours shall prevail on the father to alter his intentions towards the querent. If it be the lord of the 7th, it may be some female, or his wife, or some person with whom the querent has quarrelled, that will cause his father to alter his mind. If it be the lord of the 12th, it is some one of the mother's kindred, or it may be (especially if ♃), some minister or clergyman. Now, if, upon describing the party, the querent is well informed of who it is, and is desirous to gain the person's good will, and so to diminish their malice, let him do as follows: on the approach of any ✶, △, or ☌between the planet signifying that party and the lord of the ascendant, let the day be observed in the Ephemeris when the separates from one and applies to the other, (by good aspect if possible), and on that day endeavour a reconcilement: and it is not to be doubted that he may obtain his desire, .as I have found many times by good experience.[87]

If the lord of the 5th dispose of the ⊕, and be in the ascendant or 2d, the querent shall gain his desires. ♃or ☊ in the 5th, casting a ✶or △ to any planet in the 2d, argues the same.

If ☽separate from the lord of the 5th, and go immediately to ✶or △, of the lord of the 2d or of the ascendant, it shews assured hopes of acquiring the property of the father.

If you find an infortune ill dignified in the 4th, the father has no inclination to part with his money; nor will it be well to move him much thereto, until that unfortunate planet be transited out of the sign. But if you cannot stay so long, observe when that planet is

direct, swift in motion, oriental, in ✶or △, with ♃or ☉ or the lord of the ascendant, and then let the father be moved in the business. The observing those influences will not *compel* the father's mind, but will cause more benevolent intentions.

If the lords of the 2d and 5th apply to any good aspect by retrogradation, the querent will receive some property from his father suddenly, before he thinks of it. If there be any good aspect, reception, &c., between the lord of the 4th and any other planet, stronger than there is between the lord of the 4th and the lord of the ascendant, the father regards the party signified by that other planet better than the querent: if it be the lord of the 3d, or any planet in the 3d, then it is one of the querent's brothers, &c.

Of removing from one House or Place to another.

Observe the ascendant, the 4th and 7th houses, and their lords, planets therein, &c.

If the lord of the 4th be in the 7th, and he a good planet, and the lords of the 1st and 7th be good also and strong, it is then better to remain where you are. But if the lord of the 7th be with a good planet, and the lord of the 4th with an evil one, it is then not well to remain. If the ☽or lord of the ascendant separate from ill aspects of the infortunes, and they lords of the 4th or 7th, or from the lords of the 6th, 8th, or 12th; or if an evil planet be in the ascendant or 4th; or if the lord of the 2d be weak, I advise the querent to re-move. And if the lord of the 6th be in the ascendant, or afflict its lord or the ☽, I have found that the querent has ill health where he is, or is troubled by evil servants. If the lord of the 12th be the afflicting planet, he has backbiting, treacherous neighbours. And if the ⊕ was in the 6th, 8th, or 12th, or the lord of the 2d was in ill aspect to the lord of the ascendant, I have found that he went back in the world, &c. If the lord of the 10th afflict, I judged that he was unfortunate in trade, or had lost his credit. If the lord of the 4th afflict, he has been injured by repairing the house, &c. The lord of the 7th shews injury by an opposite neighbour, who undersells him, &c.

In giving advice which way to steer his course in hopes of better success, I observe what planet in the scheme is strongest, and has the best aspect to the lords of the ascendant or 2d; and according to the quarter of heaven the sign that planet is in signifies, I advise the querent to remove. I do not remember that any ever repented the following my advice, though many have afterwards returned me both thanks and rewards.[88]

If ☽separate from a fortunate planet, stay; if she separate from an infortune, remove. An infortune in the ascendant, or a fortune in the 7th, remove; but a fortune in the ascendant, or infortune in the 7th, remain.

Of Treasure, Mines, &c. concealed in the Ground.

To discover mines or any other thing supposed to be concealed in any place, the querent must observe whether there be any planet strongly dignified in the 4th house; and the nature of the treasure, mine, &c. may be judged of by that planet, if he have any affinity with the 7th house. The nature of the mine, &c. will depend on the nature of the planet. If ♄be lord of the 7th and in the 4th dignified, he signifies good coal mines; or if the question were of stone, then there is a good quarry. And so judge of the others according to their nature and strength in essential dignities.

EXAMPLE.

If I should purchase the Houses of Master B.?

The inheritance of the house wherein at this present 1647 I live, and some others, being proffered me to buy in 1634, had a desire to know if I should deal with the seller, and procure money in convenient time to pay for the purchase, my own money being in such hands that I could not call it in under six months' notice. Being desirous, I say, to purchase the said houses, and fully resolved upon it, I took my own question myself, at

the time I found my mind most perplexed and solicitous about it. The time of the query to myself fell out according to the position of heaven following.

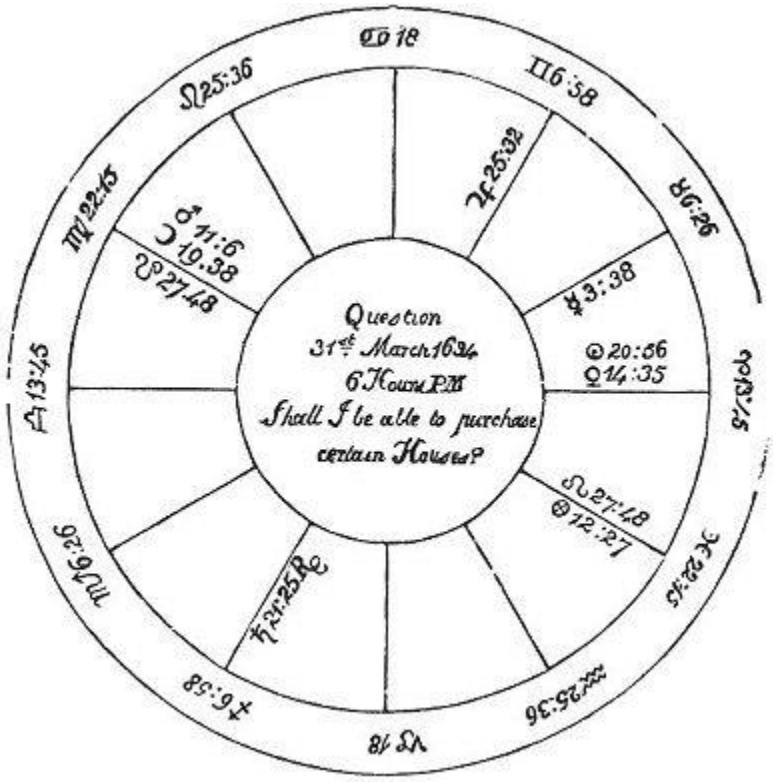

***Fig*. 9.**

Resolution of the above Question.

The sign ascending is ♎, and the degree ascending the place of ♄in my *radix*: I looked upon that as a good omen in the first place. ☿ is for myself, ☉locally placed in the 7th is for the seller. ☉receives ☿ in his exaltation; and as ☿ is near the cusp of the 7th, and no other planet there but the ☉, this signified that there was no other purchaser about it at present but myself. The ☉so exalted and angular, denoted that the seller was high in his demands, (*and so he was*,) nor was he necessitated to part with it. Finding my significator received of ☉and so near the cusp of the 7th, was an argument that I should proceed in the business, notwithstanding the many debilities of ☿. For as ☉was lord of the 7th, so also was the lord of the 11th; signifying that my *hopes* should not be

frustrated. And ☌ also was applying to △ of ♄, lord of the 4th, viz. the houses inquired after, and had no frustration, &c., before the perfect aspect a strong argument that I should buy the houses. Both significators applied to the aspect, ♄being retrograde, I also considered that ☉was in △ to ♄, the ☉being lord of my 11th and ♄of the 4th; and as ♄beholds the ascendant and has dignities therein, he, therefore, had signification of myself. Now, whether you consider him as having dignities in the ascendant or as lord of the 4th, the lord of the 11th and he applying by a △, argued assuredly that I should proceed and in the end conclude for the houses. The ☽in the next place translating the influence of ♂, lord of the 7th, to ♄, having virtue in the ascendant, though by a □out of signs of long ascension, did much facilitate the matter; but argued my contracting leisurely and slowly, because of the □aspect. And as ☽is afflicted and ☌ unfortunate, so I had much trouble and many meetings about it; the seller not abating one penny of £530, being the first money he demanded. As ☉is near to a ✶of ♃, so did a *jovial* man endeavour to procure the purchase (after I began), but ♃is cadent and in detriment, which shewed he should not prevail. ☌ angular and in aspect with ♄, and ☉lord of the 11th (or 5th from the 7th), shewed that a daughter of the seller was my very good friend in this business, and suffered no interloper to intervene, though some offered fair to hinder me. As ♂, lord of my 2d, was retrograde, it denoted that I should get none of my own money to supply my occasions. ♃, lord of ♁ in ✶to ☉, no ways impedited, but by being in detriment, in platic ✶with the lady of the ascendant, gave me such hopes. that I doubted not of procuring money when he entered ###, his exaltation, and ♂ became direct; which he did twelve days after, when a friend lent me £500.

The qualities of the houses are shown by ♑, the sign on the 4th, and by ♄, lord thereof, who having no material debilities (except being retrograde and cadent), and being also in △ to ☉, the houses were really old, but strong and able to stand many years. When ☌ and ☉came to ♂in ♉(25th April), I bargained; and on the ☽to ☍ (May 17th), I paid in

£530, and my conveyance was sealed. As ☉ wanted 6 degrees of being ☌with ☉, so was it six weeks and some days from the time of the question until I perfected what the figure promised.

As to the moles and scars on my body, it exactly agrees; for as ☉ is in ♈, which represents the face, so have I a mole on my cheek, about the middle of it; and as ♎ascends, I have one on the reins of my back. The ☽in ♍, afflicted by ♂, I have a red mole below the navel. ♃lord of the 6th in ♊, a masculine sign, I have a mole near my right hand, visible on the outside; so have I one on the left foot, as ♓, the sign on the 6th signifies.

I had a hard bargain, as the figure every way considered manifests; and shall never live to see many of the leases yet in being expire. And as ☉ is in ♈, the sign opposite her own house, so did I do myself injury by the bargain; I mean in matter of money; but the love I bore to the house I now live in, wherein I lived happily with a good master full seven years, and therein obtained my first wife, and was bountifully blessed with the goods of this world, made me neglect a small hinderance; nor now, I thank God, do I repent it, finding God's blessing in a plentiful measure upon my labours.

Chapter 28. Of The Fifth House And Its Questions

If one shall have Children, yea or nay?

HEREIN generally consider whether the signs ascending and on the 5th house be fruitful;[89] whether the lord of the ascendant, or the ☽be in aspect with the lord of the 5th, and if so, whether the lord of the 5th be strong, and also the planet or planets in the 5th or in aspect with its lord. These are signs the querent shall have children before they die. Also if the lord of the 5th be in the ascendant, or the lord of the ascendant be in the 5th, it is a strong argument of children. If there be translation of light or collection

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between the significators, you may still judge that there will be children, but not so speedily as if it had been foreseen by the former manner of judgment.

If a Woman ask, whether she may have a Child?

If a married woman ask, consider whether the lord of the ascendant be in the 5th or 7th, or the lord of the 5th be in the ascendant or 7th, or lord of the 7th in the 5th, or the ☽with him, or good planets in the ascendant, or with the lord of the 5th or in the angles; she may then conceive. But if none of these testimonies concur, and you find barren signs and planets in the aforesaid situations, (especially if infortunes be angular and fortunes cadent), she neither has conceived at present nor will hereafter. If good and evil planets be mixed, she may have children, but they will not live. If ♊, ♌, or ♍, be on the ascendant or 5th, and ☿, ♄, ♂, or ☉in the 5th, it is a strong sign of barrenness. But ☉rather causes the death of children than prevents their birth.

Whether a Man shall have Children by his Wife, or his intended Wife? Or, whether a Woman may by her Husband, &c.

Observe the ascendant, its lord, and the ☽; and if the lord of the ascendant or ☽be joined to the lord of the 5th, they shall have issue by the party inquired of. If this be not, observe whether *translation* or *collection* of light occur between the significators, or whether ☽or lord of the ascendant be in the 5th, or the lord of the 5th in the ascendant. These are all testimonies in the affirmative. If ♃or ⚲ be in the 5th no way afflicted, a child will be very speedily born; and if they, or either of them, be in the ascendant or 11th, there will be children, but not so speedily. But if the fortunes be afflicted while in those places, there is danger of the child being born dead, or dying shortly after birth. If there be signs of children, yet ⚲ be afflicted by ♄or ♂, there is danger of some accident, &c. to the mother before the birth.

If ♄, or ♂, or ♋, (and ☿, if afflicted), be in the 5th, or the two former cast their ☍to its cusp, the woman is not with child, nor will be. The □of the infortunes to the cusp of the 5th denotes no conception, unless they be strong and there be other good testimonies. The lord of the 5th, weak, &c., denotes a sickly child.

Whether a Woman be with Child or not? if she ask the Question.

She is so, if the lord of the ascendant, or ☽, behold the lord of the 5th by any aspect, or translation of light have passed between them. If the lord of the ascendant, or ☽be in the 5th, free from affliction by the infortunes, or lords of the 6th, 8th, or 12th, or ♋. If ♃be in the 1st, 5th, 7th or 11th, not in aspect to ♄, or ♂, and they slow in motion, or retrograde. If the lord of the ascendant, or 5th be in good aspect to a planet in an angle, with mutual reception. If the ☽be in reception with any planet in an angle, and be essentially fortified. If the lord of the ascendant behold its cusp by good aspect, out of a good house; or if ☽be in the 7th, and behold the lord of the 7th in the 11th; or if ☽be in the 11th, and behold the lord of the 7th in the 7th. If the lord of the ascendant be in mutual reception by house, triplicity, exaltation, or term, with a planet who has the same reception exactly; that is, if each be in the other's house, &c. If the ☽apply to the lord of the ascendant, or lord of the 5th, by good aspect from the 10th house, or by evil aspect if with mutual reception. If the sign ascending be fixed, and a fortune therein, or if the lord of the 5th be strong in the ascendant, or 10th, you may ever predict true conception.

She is not so, if you find none of the above testimonies, or barren signs on the 5th, or ascendant; or evil planets there, or afflicting their lords and the ☽.

If the Man ask the Question, unknown to the Woman.

She is with child, if the lord of the 5th behold a planet in an angle, with reception; or if the lords of the ascendant, or 5th, or 7th, or ♃, ☠, ☉, ☽, ☿, or ♋, be in the 5th, and be

fortunate.--N.B. ☿if in aspect to a malefic, and not in any aspect to a benefit, cannot be relied upon.

She is not with child, if ♃or ♀ be afflicted. If ♀ be joined to ♄or ♂, (or to if he be ill aspected), and they be combust, retrograde, or in ♌, ♍, or ♑. If ♄or ♂ be in the 5th, in ☐, or ☍, to its lord, they denote no conception; out if other testimonies be more powerful, and denote conception, they shew danger of abortion.

The lord of the ascendant joined to a retrograde planet, or to one in a cadent house, or received by a retrograde or combust planet, or if no aspect or translation of light be between the lords of the 1st and 5th, are all signs of no conception; but judge by the majority of testimonies.

Is the Child Male or Female?

The lords of the ascendant, the 5th, and the ☽, and the signs on the ascendant and 5th being masculine, denote a male; if they be, on the contrary, feminine, the child will be a female.--N.B. Unless this be a part of the question, do not attempt to give a judgment; nor then either, unless there be a great majority of testimonies on one or the other side. The sign the dispositor of the ☽is in may also be considered.

Whether the Child shall live or die?

The lord of the 5th retrograde, combust, or cadent, or being in his fall or detriment, and afflicted by the lord of the 8th of the figure, or the 8th from the 5th, (which is the 12th), are signs of death. Or if the lord of the 5th, being weak, be afflicted by an evil planet in the 8th or 12th, unless some opposite testimonies occur, it may be expected the child will speedily die. If the lord of the ascendant be in the 5th, and be afflicted as above, or if ♅, ♄, ♂, or ♇, be in the 5th, especially if retrograde, they denote the same.

Whether there shall be twins?

If suspicion be of twins, and you find, upon that question, the ascending sign be double-bodied, and a fortune therein, or the same of the 5th house, and ☉and ☽be in double-bodied signs, and the lords of the ascendant and 5th be the same, you may judge twins. But unless all, or nearly all, these testimonies concur, it is not safe so to judge.--N.B. The dispositor of the ☽, that is the planet in whose house she is, may also be considered. Moreover, if the ☊be with either ♃, ♇, or the ☽, or that all these be in either ♊, ♍, ♐, or ♓, it is a farther testimony of the woman bearing twins.

How long the Woman has been pregnant?

Observe the lord of the ascendant, the 5th, or the ☽; see which is nearest from any aspect which is past, and then judge according to the nature of the aspect. If the separation be from a △, say she is in the 5th month of her conception, or the 3d; if it be a ✶, she is in the 2d or 6th month; if a □, she is in the 4th month; an ☍, gives the 7th month; and if it be a ☌, then she has been pregnant only one month.

Of the Time when the Birth shall take place?

Observe when a ☌ or ☉are in ☌with the lord of the 5th, or there be a ☌of the lord of the 5th with the lord of the ascendant in the 5th house; about that time the birth may be expected. Observe, also, when the lord of the ascendant goes out of one sign into another; that is also a probable period for the birth. See, also, how far the lord of the 5th is from the cusp of the 5th, and give to every sign one month. Judge according to the majority of these testimonies.[90]

OF AMBASSADORS OR MESSENGERS.

The lord of the 5th and the ☽may be considered to represent the ambassador or messenger. The planet to whom either of them apply shall shew the cause and nature of the message.

If you find the application be from a fortune by ☐, ♃, or ☿, and there be reception between them, or collection or translation, and that planet be in the 10th, or lord thereof, the embassy is on some high and important matter of a political nature. If the planet who is received, or translates, or collects, be lord of the 11th, he comes to renew leagues of friendship. If the lord of the 5th be afflicted or weak in the 7th, and the lord of the ascendant and he be in evil aspect, and ♂ aspect either of them evilly, there is no sign of any peace or permanent benefit arising from this embassy or message. According as the lord of the 5th and ☽be well affected to the ascendant, its lord, and planets therein, you may predict advantage to the querent or his nation, according as it be respecting a public or private matter.

Of a Message sent for Money.

The message is shewn by the ☽, the messenger by the lord of the 5th: the other significators as usual.

If the lord of the 5th separate from the lord of the 7th, and apply to the lord of the ascendant, you may judge the messenger has effected the thing he went for, and is returning home. If the lord of the 5th separate from the lord of the 2d, he brings money. The answer the messenger brings is of the nature of that house from whose lord the lord of the 5th separates, and also of the nature of the planet himself. Therefore, if he separate from a good planet, it gives hopes of a good answer; the contrary, when he separates from evil planets. If the lord of the 5th apply by ☐, or ♃, to an infortune, before he is separated from the lord of the 7th, the messenger has had some impediment in effecting his business by the party to whom he was sent, and has also sustained some hinderance on his journey before he arrived at the place. But if this application to an infortune happen *after* the lord of the 5th was separated from the lord of the 7th, the messenger will have delays and misfortunes on his return. If you find an

infortune (especially ♂) in the 9th, he will hardly travel safe for thieves; but if a fortune be there, his going and returning will be safe.

If there be reception, (though they apply by □or ☍) between the lords of the 5th and 7th, the messenger will be well received; but the evil aspect shews some delay or excuse framed by the party to whom the messenger is sent.

As to the messenger's return; when the lord of the 5th comes to a ✶or △ of the lord of the ascendant, that day, or near it, the messenger is heard of; or when ☽separates from the lord of the 5th, and applies to the lord of the ascendant, the querent shall have intelligence of his messenger. The application of the *significator* to a ponderous planet shews more certainly the day. Use discretion in judging the nature of the journey, its length, &c. And, according to the nature of the signs and houses in which the applying planet may be found, expect the return to be in days, weeks, months, &c.

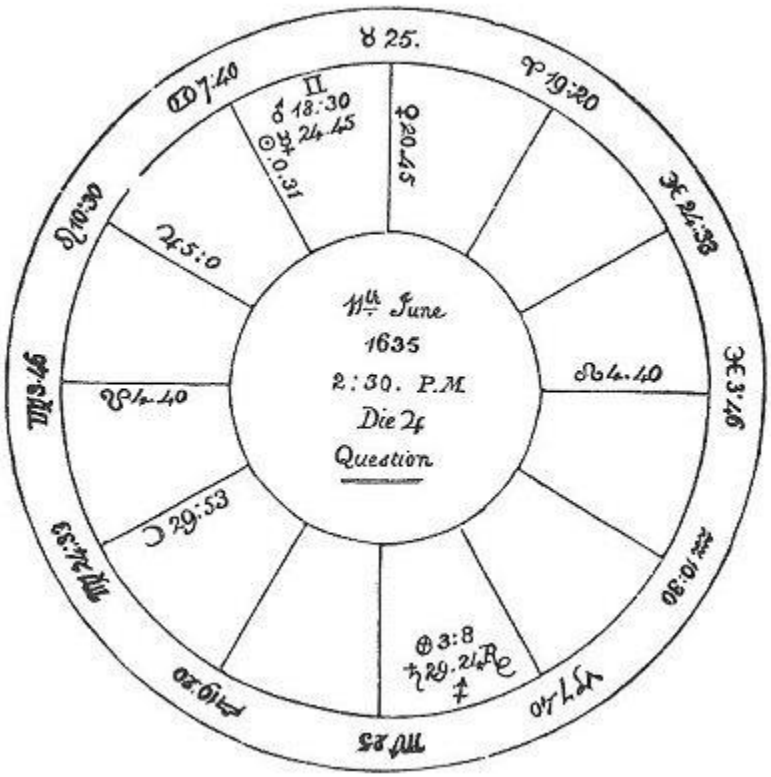

***Fig*. 10**

QUERY.--*If the Person asking the Question should ever have Children*?

Judgment upon the preceding Figure.

The ascendant is here ♍, a barren sign; the sign of the 5th is ♑, an indifferent sign in this question, but rather barren, as being the house of l2 . The lord of the 5th, ♄, is retrograde in ♐; and the lord of the ascendant, ☿, is in ♊, both signs more barren than fruitful. The ☽is in the terms of ♂, and in ☐to ♄, lord of the 5th. ☿, lord of the ascendant, is in the terms of ♄, and afflicted by ♂, and going to ☌of ♄, who is lord of the 6th as well as 5th; also in the ascendant. All these are strong arguments of barrenness; and I therefore delivered the following judgment, viz., that the querent neither had been, nor ever would be, pregnant, being naturally barren; for finding the chief angles afflicted by malefics, it was certain that the evil which prevented her from conceiving had been long upon her, and would continue. I found no one promising testimony; so I declared, positively, that she never would have any children, according to the rules of the science.

The ☽being in ☐to ♄, and ☿, lord of the 1st, applying to his ☌, the querent was very sickly, afflicted with wind and choke; ♌in the ascendant, shewed great pain in the head; and ☿in ♊, shewed the same.[91]

The querent's moles, &c. agreed exactly with the figure, viz. one mole close by the navel: one upon the right ancle; one towards the right knee, on the inner side of the thigh one near the member shewn by the ☽in ♐; and one on the outside of the right arm.

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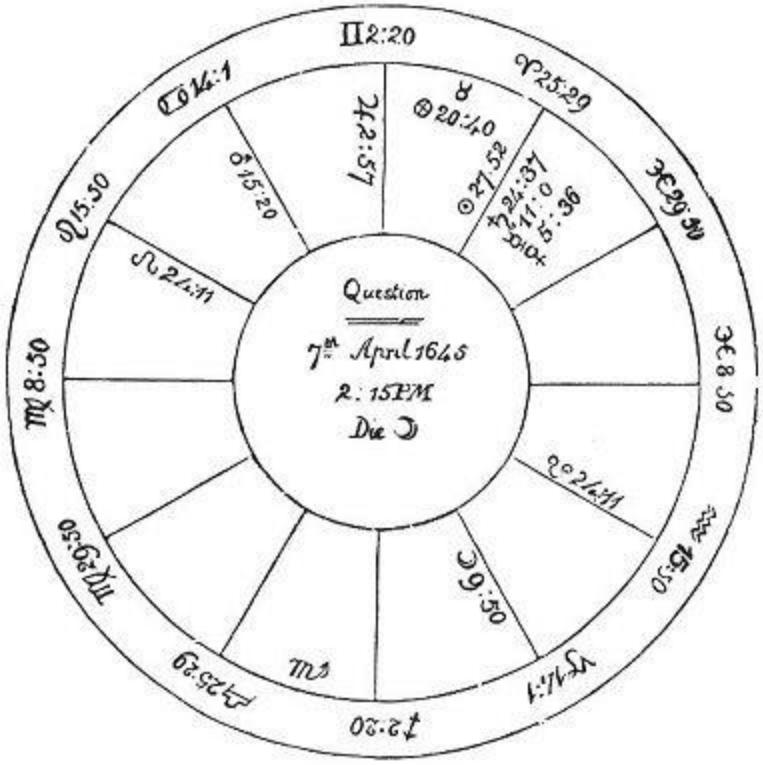

***Fig*. 11.**

QUESTION.--*A Female being with Child, whether it were a Male or Female; and about what Time she should be delivered*?

1st QUERY.--*Is the Child a Male or Female*?

In this case I followed the method of taking only the plurality of testimonies of the proper *significators*, whether masculine or feminine, and so gave judgment.

Arguments of a Girl.

♍ the sign ascending *feminine*.

♑ the sign on the 5th house *do*.

☽ in a sign *do*.

☿ lord of the ascendant, with ☉ a planet *do*.

Arguments of a Boy.

☿ lord of the ascendant in a sign *masculine*.

♄ lord of the 5th, a planet *do*.

♄ lord of the 5th, in a sign *do*.

☽ in a house *do*.

♄ in a house *do*.

♃ a benefit in an angle, in a sign *do*.

☿ applying to aspect of ♂, a planet *do*.

Here are seven testimonies of a boy, and only four of a girl; I therefore affirmed that the lady carried a son; (*and to it proved*).

2d QUERY.--*How long ere she should be delivered*?

The sign of the 5th is moveable; so is ♈, wherein both the lords of the 1st and 5th are situated. These argued but a short time; but as ♄, lord of the 5th, is a ponderous planet, and was slow in motion, I considered him much in this query; and also ☽, because she was situated in the 5th I took the distance between

♄in ♈ 24° 37

☽in ♑ 9 50

Difference 14 47

Also between ♄and ☿:

♄in ♈ 24° 37

☿in ♈ 11 0

Difference 13 37

Finding only one degree and ten minutes between the as. pest of the ☽and ♄, and that ☿of and ♄, I gave for every degree one week, and so judged that, about *fourteen* weeks from the time of the question, she should be delivered.

The birth took place on the 11th July following, when a ♂ transited the degree ascending, and ☿the ☌of ☽, viz. ♋9°. The ☉also was that day in ♋27° 48′, the perfect □to his own place in the figure, and ☽in ♂with ☿in ♋. The time was thirteen weeks and four days after the question.

Chapter 29. Of The Sixth House

Viz. Sickness, Servants, Small Cattle, &c.

IN the first place, we ought to take the figure for the exact moment of the person falling sick, or rather of being obliged to take to his bed.[92]

Secondly, if that cannot be had, accept of that time when first any person spoke to a physician, &c. regarding the patient. And if it was with his consent, the ascendant will signify him; but if unknown to him, the ascendant will denote the querent; and the house describing his relation to the person speaking of the sickness will describe the patient. (This is, supposing the physician to be an astrologer, which they formerly were; but if the patient's friend speak to an astrologer, the same rule holds.)

Thirdly, or let the physician note the time of his own first speaking with the patient,[93] and let a figure be erected for that moment.

Then consider carefully, first, the ascendant and planets therein; secondly, the 6th house, and planets therein, thirdly, the sign and house wherein the Moon is; fourthly, how she is affected or afflicted, by what planet, in what house that planet is, and of what house be is lord.

What Part of the Body as afflicted?

If the ascendant be afflicted by an evil planet, and he retrograde, combust, peregrine, slow in motion, or in ☐or ☍to the lord of the 4th, 6th, 8th, or 12th, the disease is then *in the head*, or in that part or parts of the body which the planet or planets signify in the sign then ascending.

For example; if ♋ascend, and ♄therein, the sick party is afflicted in the head, because the ascendant signifies the head; and also has some disorder in the bowels, reins, or secrets, because ♄in ♋signifies those parts; or else with some rotten cough, as ♄denotes coughs, and ♋rules the breast. If the lord of the ascendant, ☽, or lord of the 6th, be in a sign signifying the same member or parts as ♄, or if the sign on the 6th represent the same, your judgment will be more certain; I may say, infallible.[94]

I also would observe, in like manner, the 6th house, its sign, lord, and planet in it. Also observe carefully the sign and house where ☽is, her separation and application. And you may then venture safely to give judgment as to what part of the body of the sick person is grieved, and of the nature and quality of the sickness.

The Cause and Nature of the Sickness.

The significators in *fiery* signs, and *fiery* signs on the ascendant and 6th, shew feverish and hot complaints, hectic fevers, erysipelas, &c.

Earthy signs argue long and tedious diseases, agues, intermittent fevers, and such complaints as proceed from melancholy, consumption, &c.

Airy signs shew corrupt blood, gout, cutaneous diseases, scrofula, &c.

Watery signs shew diseases that proceed from cold and moisture, coughs and disordered stomach, &c.

Diseases signified by the Houses.

1st. All diseases in the head, eyes, face, ears, nose, mouth, foul breath, &c.

2d. The throat, scrofula, quinsey, glandular swellings in the neck, sore throat, &c.

3d. The shoulders, arms, and hands.

4th. The stomach, breast, and lungs.

5th. Back, hind parts of the shoulders, liver, heart, sides, and stomach.

6th. Lower part of the abdomen, the intestines, liver, and reins.

7th. The hams, the flank, the small intestines, bladder, matrix and members of generation.

8th. The spine, rectum, and groin.

9th. The hips and thighs.

10th. The knees and upper part of the leg behind the knees.

11th. The leg from the knee to the ancle, the shin-bone, shank, &c.

12th. The feet, ancles and toes, with all hurts or disease incident to them.[95]

Whether the Disease will be long or short.

Have regard to the time of year, and consider that diseases commencing in the winter are usually longer, and those in summer shorter.

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Diseases which proceed from ♄are more permanent, and are generally regulated much by the motion of the ☉. Those of a hot and dry nature, which are influenced by ♂ and ☉, are short, and regulated by the motion of ☽. ♄causes long chronic complaints, falls, bruises, blows, &c.; ♃and ☉shorter; ♂ short, violent, and quick, such as cuts, bleedings, &c. ☠ a mean between both, and such as proceed from intemperance; ☿various and changeable, such as fits, &c.; ☽such as return at periods, as the falling sickness or epilepsy, giddiness, swimming in the head, gout, periodical illness in females, &c.[96]

Signs of a short Disease.

When the cusp of the 6th, the ☽, and the lords of the 1st and 6th, be in *moveable* signs, or the lord of the ascendant swift in motion, or going out of his own house into another, so that it be not the sign of the 6th or 12th, or if a fortune be in the 6th, you may judge that the disease will soon terminate.

Signs of a long Disease.

The lord of the 6th evil or afflicted, and placed in the 6th, fixed signs on its cusp, or the significators, especially the ☽, in fixed signs, are testimonies of a long and durable disease and if ♄be lord of the 6th and in a fixed sign, or retrograde and slow in motion, he extremely prolongs the disease; but if he be in a moveable sign, or in any of his own terms, or be swift in motion, he is not then so unfortunate.

General Signs.

The disease continues but a short time if ♓be on the cusp of the 6th. If the ☽apply by ill aspect to the lord of the ascendant, the disease will increase. If ☽be in the 6th in ill aspect to ☠, the disease is brought on by intemperance, either evil diet or surfeit; and if ☠ be in ♏, there is evidence of a scandalous disease. But if the patient be a female, it may be the whites or other diseases of the matrix.

The last degrees of any sign being on the cusp of the 6th, denotes that the disease is almost at an end. If the lord of the 6th apply by ill aspect to the lord of the ascendant, it is a token of the disease increasing; the same, if the lord of the 6th be in the 8th or 12th house. If the lord of the ascendant be in the 6th, and the lord of the 6th in the ascendant, the disease has been of long continuance, and will continue until one of the significators leaves the sign where he is. And if, at the time of transiting out of the sign, he meet the evil aspects of the infortunes or lords of the 4th or 8th, and they slow in motion, and it be from signs evilly aspecting one another, it is a strong sign that the sick person will then depart this life. The lord of the 6th afflicted by the □or ☍of the lord of the ascendant, the disease is grievous and hard to cure. If the lord of the 6th be in the ascendant, the disease will continue, but the pain at times is small. If he be in a cadent house, the disease is not important, nor will it endure. Good planets in the 6th promise a good end to the disease; evil, the contrary. The lord of the 6th, afflicted in the 6th, 8th, or 12th, or an infortune in the 6th, denotes a disease not easily curable. The lord of the ascendant *and* ☽free from ill aspects, both being unafflicted and strong, and not in the 6th, 8th, or 12th, is a fair testimony of recovery and health. The lord of the 1st in the 4th or 8th, if not afflicted, denotes not death; but if unfortunate, it shews great difficulty ere the party be cured. If, however, he be unfortunate by retrogradation, being combust, &c., he may possibly be cured, but will afterwards relapse. If he be in evil aspect with ☽, there is danger; but, above all, if ♄be lord of the ascendant, and be slow or retrograde, there is reason to fear a long and tedious sickness. If ♄be strong and well qualified, the reverse.

When the lord of the ascendant is angular, strong, and unafflicted, the querent is in no danger. The ☽slow in motion and in any aspect with him, it prolongs the infirmity, though there be at present hopes of a cure. If she be swift in motion when aspecting the lord of the ascendant, the cure will be effected in a little time. The ☽decreasing in light,

and coming to ☌, ☐, or ☍of ♄, unless the disease be already leaving the patient, is very dangerous. The ☽in ☌with an oriental planet, who is swift in motion and direct, denotes a brief sickness; if joined to a retrograde and occidental planet, the contrary.

If ♏ascend, the patient has been the cause of his own sickness by folly, anger, peevishness, or the like; especially if ♂ be therein. Both lights cadent and their dispositors unfortunate, the sickness will be severe; but if the fortunes assist, though the disease will be of long continuance, the party will recover beyond all expectation: the stronger the fortunes are, the more confident you may be in your judgment. If ♂ be lord of the ascendant and in the 6th, but in good aspect to ☉, there is no danger; if even in ☐or ☍, not much.

The lord of the 6th combust, retrograde, in his fall or detriment, and in the 8th, in ☌, ☐, or ☍of ♄or ♂, you may fear that the disease will never leave the patient till death. If the ☽also be applying to the same aspects of the lord of the 8th, your judgment will be certain. The ☽or lord of the 1st, in ☌, ☐, or ☍to a benevolent planet, but he retrograde, the patient will recover, but not speedily, for it denotes relapsing out of one disease into another. When ☽leaves ☍of ☉, and is swiftly applying to the ☐or ☍of ♂, it threatens a fatal end to the disease; but if she receive a ✶or △ of ♃or ☉, the sick shall recover. If the ☽be in the ascendant, and in ☌, ☐, or ☍to ♄or ♂, or any other evil planet, it is a token of severe illness and danger, unless she be in mutual reception with the planet afflicting.

Testimonies of Recovery.

The ☽applying to a fortune, powerful, denotes that the party will be restored to his former health. If reception be between the lords of the ascendant and 8th by house or triplicity, the fortunes assisting the degree ascending, or that on the 6th, or the ☽by ☌, ✶, or △, the sick will perfectly recover. The lord of the ascendant, being a benefit planet, or any fortune in an angle and no ill aspects cast thereto, signifies health. A certain sign of

recovery is, when ☉, ♃, ☋ or ☽be in the ascendant, and no ways afflicted by the lord of the 6th or 8th house; the more so if in the houses of the lights or benefics. The ☽in her own house, or the houses of ♃or ☋, and in any aspect to those benefics, and no way afflicted by ♅, ♄, or ♂, denotes health and life. Whenever ☽☌♃occurs, it denotes recovery, but if in ♑, less than in any other sign. If ☽apply to the lord of the ascendant by good aspect, and be unafflicted (by the lord of the 8th or 6th especially), recovery is promised.

When, at the first falling sick of the party, ☽is void of course, and at her next crisis meets a ✶or △ of ♃or ☋ in the exact degree which forms the perfect critical aspect, the patient will undoubtedly recover, be he never so ill at time of asking the question. If at the commencement of a disease, ☉, ☽, and the lord of the ascendant, are free from ill aspects of the infortunes or lord of the 8th, there are assured hopes of life.

Arguments of Death.

The lord of the ascendant and ☽in ☌with the lord of the 8th, without interposing aspects of fortunes.

The lord of the ascendant cadent, and the lord of the 8th in an angle, especially if the latter be an infortune. The ☽applying to a planet in the 8th, and afflicted; and the lord of the ascendant applying to the lord of the 8th or to evil planets therein, are very dangerous. The ☽transferring the light of the lord of the 8th to the lord of the ascendant, usually denotes death. So when the lord of the 8th is in the ascendant, the lord of the ascendant and ☽both being afflicted; or the lord of the ascendant being in the 8th and afflicted, and ☽also weak and in no dignity. The lord of the ascendant under the Earth, and in ill aspect to the lord of the 8th in the 8th, or if the two lords be in ☌in the 4th house. It is a very ill sign when the lord of the ascendant is in ☌with the lords of the 4th, 6th, 8th, or 12th.

The lord of the ascendant combust in the ascendant, or the lord of the 8th in the 10th, and the lord of the ascendant in the 4th, 6th, or 12th, and afflicted by malefics, are very evil. The lord of the 8th retrograde and conjoined with the ☽, or in ☐or ☍to her, shews death. The lord of the attendant in ♌or ♒, and evilly affected by the lords of the 6th or 12th, shews little hopes of recovery; and his being conjoined with *Aldebaran*, *Antares*, *Caput*, *Algol*, or other violent fixed stars, is also evil. And if both lights be afflicted by ♄in an angle, it is testimony of a tedious, long illness.

The ☽in the 4th with ♂, or the ☉with ♄, are testimonies of death; also the ☽near the cusp of the ascendant in ☐of ♂ from the 4th. The ☽combust in the 8th, or if lady of the 6th and combust in the ascendant or 4th, the same; and especially if the lord of the 8th be afflicted.

The ☌of ☽with ☉is a very ill sign, especially when she has not yet passed ☉; however, when the ☌is in ♈or ♌it is not quite so evil.[97]

In all cases the multiplicity of testimonies must be observed, the strength of the afflicting planets, and the absence of assistance to neutralize the evil influence, before you predict death.

To know whether the Querent be really ill or not.

If the ascendant be not afflicted, nor its lord out of all his essential dignities, nor afflicted by ♄, ♂, or the lord of the 6th, he is not. Or if no planet afflict the 6th house by its presence, or the ☽be not afflicted in the 8th or 12th, or if you find ☋, or ☊, or ☊in the ascendant, or ☉in the 6th, or the ☽and lord of the ascendant in good aspect, or ☋or ☊ casting a ✶or △ to the cusp of the ascendant or 6th, the party is not really sick, but at the utmost some slight indisposition has occurred, which will shortly be rectified.

Whether the Disease be in the Body or Mind, or both.

If the ascendant, ☉, and ☽be all afflicted, the disease is then through the whole body; but if the planets which dispose of ☉and ☽, or if the lord of the ascendant, or two of them, be afflicted, the disease is more in the mind. If the ascendant the ☽, and lord of the ☉are all, or two of them, afflicted, and the lord of the ascendant and the dispositor of they free, the affection is in the mind and not in the body.

If ♄afflict the ☽, he shews trouble in the mind, vexation and care; but if ♃be in the planet afflicting the ☽, the contrary; for he never oppresses the mind, but always the body.

If the lord of the house in which ☽is, and the lord of the ascendant are afflicted by ☉, or combust, or under the beams of ☉, the distemper is bodily. But if the ruler of ☽and the ruler of the lord of the ascendant be *much* afflicted, the grief is more mental than bodily. Also if the degree ascending and that degree where ☽is be more afflicted than the lords of those signs, the disease is more in the mind; but if the lords be more afflicted, the reverse.

When the dispositors of the lights are very much afflicted and very weak, and the degree ascending have a □of mo but no ill aspect of ♄or ♂, the person is much tormented in mind. In these cases ☉causes the mind to be troubled by pride, self-conceit, haughtiness, &c. ☌ argues luxury, or a lasciviousness which disturbs both body and mind. ☿shews foolish fancies and fearful imaginations.

Of the Crises, or of Critical Days.

If the disease be not chronic, you will find great alteration in the patient near those times when ☽arrives at a distance from her first place, when the patient was taken ill, of 45, 90, or 135 degrees. To learn whether these *crises* will be good or evil, see how she is aspected at those times. If she be in good aspect with a benevolent planet, it promises ease and an improved condition; but if she there meet with evil aspects of malevolent planets or the lords of the 6th or 8th, he will be worse, and the medicines do little good.

I have always observed that, when the ☽came at the *crises* to ☌, ☐, or ☍of that planet which did afflict the ascendant, ☽, or lord of the ascendant, or when she came to such aspect of the lord of the 6th or planets placed in the 6th, the patient suffered much, the disease ran high, and medicines given about that time worked little or no good. When she came, however, to ✶or △ of the lords of the ascendant, 9th, 10th, or 11th houses, I observed some interval of ease or amendment. So when the lord of the ascendant came to any good aspect of the ☉(if he had not power or dominion in the disease), I found the patient's *mind* much relieved.

How long it may be before Recovery.

When there is reason to believe that, by God's blessing, the sick person shall recover, and it be desired to know when, observe which planet is lord of the ascendant, and what benevolent planet he is in aspect with; then see what house they are in, (that is the one which *applies* to the other's aspect), whether angles, &c., and what signs they possess, whether moveable, &c. Then according to discretion and quality of the disease, so frame the measure of time. In general, I judge in so many days as the aspect wants degrees of being perfect, if the sign be moveable and the planet angular; but if swift in motion, I am the more certain that the patient will begin to amend in so many days. If the sign be common, in which the application is, I neither judge days, weeks, nor months, but use discretion, having first observed the nature of the disease.

The ancient rule was as follows:

Moveable signs shew *days*.

Common ditto *weeks*.

Fixed ditto *months*.

Angles are equivalent to *moveable signs*.

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Succeedent houses to *common signs*.

Cadent houses to *fixed signs*.

It is well to observe, also, the quick or slow motion of the ☽, the sign she is in, and her situation as to angles, &c. I often find that when the lord of the ascendant quits the sign he is in, and enters a sign in which he has dignities, the patient recovers at that time, or feels an alteration for the better. If a common sign be on the 6th, 28° or more, I say, that the disease will vary in two weeks.

JUDGMENT OF THE DISEASE FROM THE AFFLICTION OF THE MOON AT THE FIRST ILLNESS OF THE PATIENT, OR THE TIME OF ASKING THE QUESTION.[98]

Whoever shall be first taken ill, or compelled to take to his bed when the ☽ is afflicted by ♄, or by ☿, if he have the nature of ♄, will, in a great measure, suffer as here described.

The ☽in ♈, in ☌, □, or ☍of ♄.--Headache or heaviness in the head, much discharge at the nostrils, dulness, or weariness of the eyes, humours falling into the throat; weak pulse, and a heavy drowsiness of mind; loathing at the stomach, violent unseasonable perspiration, internal heats, and externally cold. The patient more afflicted at night than by day.

The ☽in ♉, in ☌, &c. of ♄.--Fevers proceeding from obstructions near the heart, liver, and lungs, occasioned by surfeits, high living, &c. The pulse high and immoderate, the body inflated, lungs oppressed, ulcerated, &c. If the ☽be not supported by benefits, there is danger of death within 14 days.

The ☽in ♊in ☍♄, &c.--The disease has its origin in the mind by too much care, or a multiplicity of business, or otherwise by fatigue in travelling or over-exercise. There is danger of a small fever; the pain is dispersed over all the body, but chiefly in the joints. The vitals are afflicted, the pulse rare, and weak; there are frequent perspirations,

symptoms of spleen and consumption. If ♂ also afflict, without assistance, the patient will hardly live 10 days; but if ♃or ♀ assist, the sick person may recover after a long period.

The ☽in ♋in ☌of ♄, &c.--The breast is much afflicted with tough phlegm, or slimy matter; there is cough, and much salivary discharge. Hoarseness, catarrhs, &c., with humours falling into the breast; the windpipe obstructed; slight fevers, agues, &c. holding a long time; also pains in the bowels, infirmity in the reins or secrets. If ☽be decreasing, and near the body of ♄, the disease will continue a long time.

The ☽in ♌in ☌, &c of ♄.--The sickness arises from bad blood, the patient suffers with heat in the breast, heart-burn, violent fevers, troubled pulse, much external and internal heat, faintness at the heart, swoonings, the stone; and sometimes the black jaundice. If there be no good aspects to prevent it, they frequently die when ☽comes to ☍of ♄.

The ☽in ♍in ☌, &c. ♄.--The illness arises from indigestion, obstructions in the bowels, &c.; shooting pains are felt under the ribs, &c.; flatulency, gout, or aches in the thighs or feet, &c. The patient generally is sick a long time.

The ☽in ♎in ☌, &c. of ♄.--The disease has its origin in some surfeit of wine or rich food, meat ill digested, &c., or from excess of venery; the breast is affected, also he head, there is no appetite, a loathing in the stomach, cough, hoarseness, &c., and often great pain in the joints, knees, and thighs, with an itching in those parts, and fear of sciatica.

The ☽in ♏in ☌, &c. of ♄.--Denotes a disease in the *rectum* or *sphincter muscle*, piles, hemorrhoids, or fistula. There is very likely a retention of urine, or the reverse; stone in the bladder, dropsical humour, &c. It may be that it is gonorrhea, &c., or the diseases of the matrix.[99]

The ☽in ♐in ♂, &c. of ♄.--The patient suffers by pains in the joints, &c., or fever, extremes of heat and cold. Illness often happens by too great exertion of body or mind, and cold taken afterwards; there is much melancholy also. And if it be an ☍of ♄, there is generally a spice of gout, tumours or swellings in the hands, thighs, or feet, &c. If ♂ have any ill aspect to ☽, it proves a violent burning fever.

The ☽in ♑in ♂, &c. ♄.--The disease proceeds from cold or melancholy. It brings heaviness of the breast and stomach, difficulty of breathing, dry coughs, the lungs oppressed, and a fever is approaching. The pain is greater at night than in the day. The patient continually complains of headache, or pain in the left ear, or of a rumbling noise in his head.[100]

The ☉in ♒in ♂, &c. ♄.--The illness is occasioned by too much toil of mind or body, want of sleep, or due refreshment. The malady comes on unequally with remission or intension.[101] The patient suffers by noise in the head, by wind, or faintness at the heart, or a rising and danger of suffocation by hysterical fits, &c.; and by sore throat.

The ☽in ♓in ♂, &c. ♄.--The complaint arises from cold,[102] and the patient is afflicted with continual fever, frequently sighs, suffers pains under the nipples of the breast, and about the heart; the throat suffers from much phlegm, or there is water in the chest, rotten cough, &c.

Whoever is taken ill when ☽is afflicted by ♂or the ☉, suffers in the following manner:--

The ☽in ♈in ♂, &c. of ♂.--The disease is from some distemper of the membranes, &c. of the brain. There is continual fever and restlessness, extreme thirst, foul tongue, or inflammation of the liver, heat and pain in the breast, high pulse, and often delirium. The patient is generally almost mad with pain, either cholic or cholera pains, &c. in the bowels. If after the ☽leave ♂ she go to ☌or ☍of ♄, there is small hope of life; and if she decrease in light, and be slow in motion, there is scarce any.

The ☽in ♉in ♂, &c. of ♂.--There is an abundance of blood, continual fever, the whole frame disordered; sore throat, with inflammation in the neck, or hind part thereof; pain in the bones, broken sleep, and a foolish longing after wine and cold water. There is often putrid sore throat and also hoarseness, and strangury, stone, or gravel, with pain in the reins or kidneys, or disease therein.

The ☽in ♊in ♂, &c. ♂.--A violent fever, high and in-ordinate pulse; there are obstructions and corrupt blood, pains all over the body, heat in the reins, and sometimes spitting of blood; also lameness or fractures in the arms, pains in the joints, &c.

The ☽in ♋, in ♂, &c. ♂. This shews a disordered stomach by having taken too much to drink, &c., riot, and excess. It often turns to dysentery, cough, and spitting of blood.

The ☽in ♌in ♂, &c. ♂.--Too much blood abounds, weak pulse, a disturbed brain, raving, and strong fits; loss of or depraved appetite; distempers of the heart, heaviness all over the body, and drowsiness. There is danger of consumption. The blood is over-heated, the body dry and parched; there is probability of pleurisy, fainting, and swooning. I ever fear this ♂or ♃more than in any other sign.

The ☽in ♍in ♂, &c. ♂. Flux in the bowels, small fevers, a failing pulse, cholic, flatulence, weakness in the legs, or near the ancles. If ☽be afflicted by ♂ in ♍, diseases are not easily removed.

The ☽in ♎in ♂, &c. ♂.--The patient is grieved with plentitude of blood, and, from that cause, has high pulse, no rest, is feverish, and an inflammation all over the body. The patient has taken some surfeit by excess or disorder in his diet, or the blood is over-heated; or there is stone or gravel in the kidneys. Violent burning fevers often follow.

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The ☽in ♍in ♂, &c. ☍.--There is generally some ulcer, lues, gonorrhea, &c., or, if a child, measles; it may be piles, or hemorrhoids. There is frequently some stoppage in the head by grievous colds; and as the blood is corrupt, so we find blotches, breakings out, &c. If there be reason to believe it, some scandalous disease may be judged, especially if ☠ afflict ☽.

The ☽in ♐in ♂, &c. ☍.--The disease is in general violent, and caused by gluttony or repletion. There is fever frequently very high, or choleric passion; but the pulse is often faint, and beats slow and feeble. Inordinate exercise has frequently been the cause of the disease; and he suffers pestilent fever, &c. It shews hand and foot gout, breakings out, sore throat, &c., and, at times, sore and inflamed eyes. Also, hurts by horses.

The ☽in ♎in ♂, &c. ☍.--Nausea abounds, vomiting and flux. A puffing up of the sinews, (such as cholera cramps), inflammation of the breast, and humours in the hands or fingers. The face is yellow and sunken, the body extremely wasted, and the blood corrupt. The pulse remits, and is slow. The yellow jaundice happens under these aspects.

The ☽in ♒in ♂, &c. ☍.--If ☽be slow in motion, and decreasing in light, the disease proceeds from sharp and violent affections, or vehement passions. There is pain at the heart, swooning fits, high pulse, great pain in the chest, and much difficulty in breathing.

The ☽in ♓in ♂, &c. ☍, The body is full of gross humours, the disease is from too much drinking and excess, and is most prevalent in the night time. The party is troubled with a kind of delirium, (frequently it shews that they are yet drunk), they have vehement thirst, sharp burning fevers, and are desirous of wine. They have generally a looseness and much pain in the bowels, or a violent cough and great expectoration, and are almost suffocated with phlegm; the body is swollen, and there is danger of dropsy.[103]

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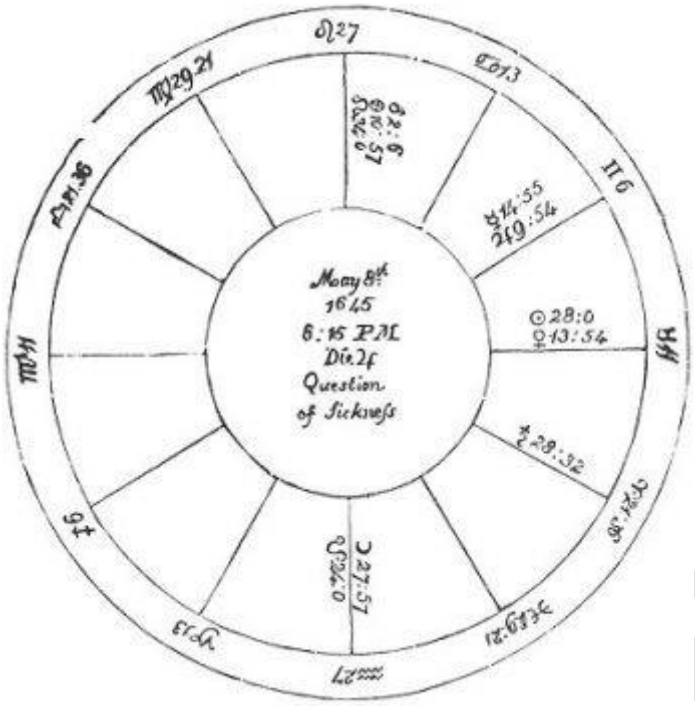

***Fig* 12**

QUESTION. *A sick Doctor, what is his Disease? Is it curable?*

To learn what part of the body is affected, observe that, as the ascendant is not afflicted, you mast look to the 6th house, and see if it be so. Therein we find ♄in his fall; and as he naturally signifies diseases by his presence, I concluded that, from thence and that house I must require the part aggrieved.

♈represents the head.

♄in ♈shews the breast.[104]

♂, lord of the ascendant, in ♌, signifies the heart. The Lord of the ascendant has just separated from a □of ♄, being at that time in ♋, which signifies and rules over the breast and stomach. From all these testimonies I concluded that the parts of the body grieved were the head, breast, heart, and stomach; and that there was lodged in the breast or stomach some obstruction, which caused all his disease and suffering.

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From what Cause the Sickness was.

The principal significator being ♄, and he in his own terms, and ☽disposed of by him and applying to him, shewed such diseases as he causes, and which might exist in the head and breast. ♂, lord of the ascendant, was also in the terms of ♄, and applied to □of ☉, who was in the terms of ♂. So that dry, melancholy diseases were shewn by ♄, and heat or fever by ♂. And, indeed, when I came to speak to him, he was suffering great pain and rumbling in his head, was very silent, dull, and melancholy; he slept very little, had a very dry cough, and complained of great weakness and pain in his breast and at his heart. His complexion was between black and yellow, as if inclined to jaundice; and he had also a lingering consumption and great weariness all over him, with pains in his joints, shewn by ☽in an airy sign. The ascendant is ♏, which signifies the secrets, stone in the bladder, &c.; so the ☽in ♒shews the secrets and diseases therein, &c. Hence he had great difficulty in making water, voided red gravel, and suffered great pain in those parts.

Whether the Disease would be curable or not?

The author of the disease being ♄, shewed it would be of some continuance, for he is a slow ponderous planet; besides, the angles of the figure are all fixed, and the lord of the ascendant, ☉, and ☽, are all in fixed signs. The lights are in □aspect to each other from angles, and both in the terms of an evil planet; and the lord of the 6th in a fixed sign: all these shewed a long disease. The ☽being in the 4th in aspect to ♄in the 6th, and applying to □of ☉, who has dignities in the 6th, and the lord of the 4th in the 6th, and lord of the 8th in the 8th, the testimonies were strong for his death: *he died the 14th August following*.

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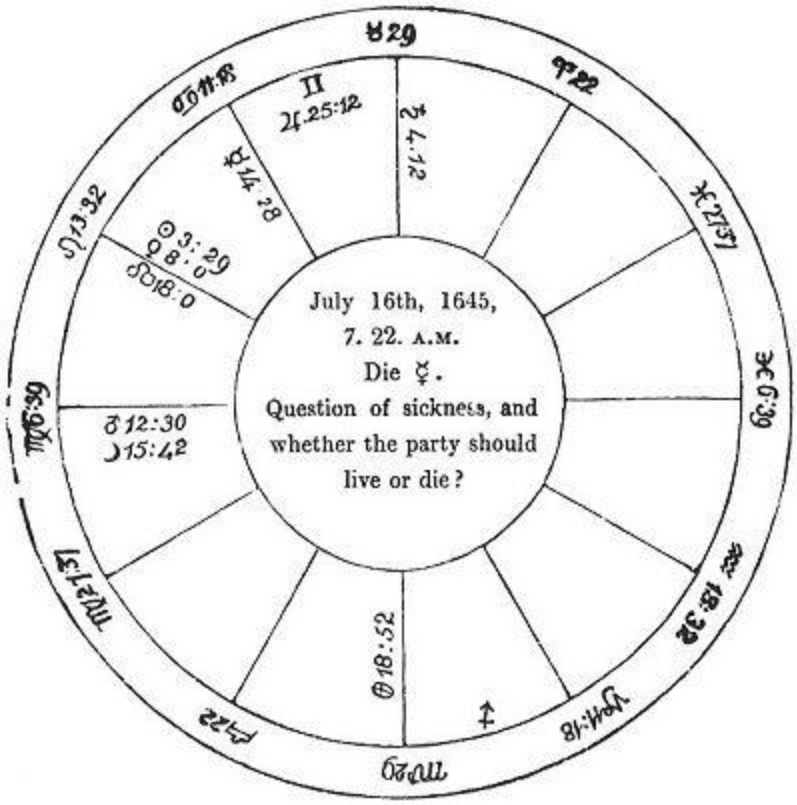

Fig 13.

QUESTION.--*What is the Disease? and will the Patient live or die?*

The ascendant is ♍, and it is afflicted by the presence of ♂, who is partly lord of the 8th house, as great part of ♈ is already therein. Hence from the ascendant chiefly we must learn the cause and nature of the disease, and part afflicted. A fixed sign ♒ is on the 6th, afflicted by ♉, and ♄, lord of the 6th, is in ♉, an earthy sign, of the same nature as ♍, the ascendant. The ☽, a general significator in all diseases, is also in ♍ in ☌ with ♂. All these shewed the patient to be greatly afflicted with the spleen, cholic, and obstructions in his bowels, small fever, flatulence, and a failing weak pulse. And as the ☽ and ♂ are in the *ascendant*, the patient was perplexed with distempers in the head, slept unquietly, &c. (*All which was true*.)

Will the Patient live or die?

All the significators promised death.

1st. ☉, light of time, was in close ☐to ♄, lord of the 6th in fixed signs.

2d. The ascendant was extremely afflicted by presence of ♂, he being lord of nearly all the 8th house.

3d. The ☽was afflicted by ♂ in the house of life.

4th. The ☽separated from the ✶of ☿, lord of the ascendant, in signs of long ascension, and did transfer his light to ♃, lord of the 4th and 8th houses, denoting death and the grave.

N.B.--The patient died the 28th of the month, when ☿came to the ☐of ♄and ♂of ☉in the figure. The ☽came then to ☍☉, and had transited the cusp of the 6th house of the day preceding, viz. ♒14°.

A TABLE

SHEWING WHAT PARTS OF MAN'S BODY EVERY PLANET SIGNIFIES IN THE TWELVE SIGNS.

♈

♄ Breast, Arms

♃ Neck, Throat, Heart, Bowels

♂ Head, Bowels, Eyes

☉ Thighs

♀ Reins, Feet

☿ Secrets, Legs

☽ Head, Knees

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♉

♄ Heart, Breast, Bowels

♃ Neck, Shoulders, Arms, Bowels

♂ Throat, Reins

☉ Knees

♀ Reins, Feet

☿ Secret-Members, Head

☽ Throat, Legs

♊

♄ Heart, Bowels

♃ Breast, Reins, Secrets

♂ Breast, Arms, Secrets

☉ Legs, Ancles

♀ Throat, Thighs

☿ Head, Knees

☽ Shoulders, Arms, Thighs, Feet

♋

♄ Bowels, Reins, Secrets

♃ Heart, Secrets, Thighs

♂ Breast, Feet

☉ Feet

♀ Arms, Shoulders, Knees

☿ Eyes, Throat, Legs, Knees

☽ Head, Breast, Stomach

♌

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♄ Reins, Secrets

♃ Bowels, Thighs, Knee

♂ Heart, Bowels, Knees

☉ Head

♀ Heart, Breast, Legs

☿ Throat, Arms, Shoulders, Feet

☽ Arms, Shoulders, Bowels

♍

♄ Thighs, Secrets, Feet

♃ Reins, Knees

♂ Bowels, Legs

☉ Throat, Neck

♀ Stomach, Heart, Bowels, Feet

☿ Head, Breast, Heart

☽ Arms, Shoulders, Bowels

♎

♄ Knees, Legs

♃ Head, Eyes, Secrets, Legs

♂ Reins, Secrets, Feet

☉ Arms, Shoulders

♀ Head, Intestines

☿ Throat, Heart, Stomach, Bowels

☽ Breast, Heart, Reins, Bowels

♏

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♄ Knees, Legs

♃ Thighs, Feet

♂ Head, Arms, Secrets, Thighs

☉ Breast, Heart

♀ Throat, Reins, Secrets

☿ Arm, Shoulders, Back, Bowels

☽ Stomach, Heart, Bowels, Secrets

♐

♄ Legs, Feet

♃ Head, Thighs, Knees

♂ Throat, Hands, Thighs, Feet

☉ Heart, Bowels

♀ Arms, Shoulders, Secrets, Thighs

☿ Breast, Heart, Reins, Secrets

☽ Back, Bowels, Thighs

♑

♄ Head, Feet

♃ Eyes, Neck, Knees, Legs

♂ Arms, Shoulders, Knees, Legs

☉ Back, Bowels

♀ Breast, Heart, Thighs

☿ Stomach, Heart, Secrets

☽ Reins, Thighs, Knees

♒

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♄ Neck, Head

♃ Arms, Shoulders, Breast, Feet

♂ Breast, Heart, Legs

☉ Reins, Secrets

♀ Heart, Knees

☿ Heart, Bowels, Thighs

☽ Secrets, Legs, Ancles

♓

♄ Arms, Shoulders, Neck

♃ Head, Breast, Heart

♂ Heart, Bowels, Ancles, Feet

☉ Secrets, Thigh

♀ Neck, Throat, Bowels, Legs

☿ Reins, Secrets, Thighs, Knees

☽ Thighs, Feet

The DISEASES *each* PLANET *naturally signifies when it becomes the afflictor, and is posited in any of the* TWELVE SIGNS.

DISEASES OF SATURN.

♄in ♈signifies rheum, melancholy, vapours, cold in the head, obstructions, stoppage in the stomach, pains in the teeth, deafness, &c.

♄in ♉signifies swelling in the neck and throat, king's evil, scurvy, hoarseness, melancholy, and chronic distempers about the neck and throat.

♄in ♊signifies infirmities incident to the arms and shoulders, consumption, black jaundice, and diseases proceeding from bad blood.

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♄in ♋denotes phthisic, ulcerations in the lungs, obstructions and bruises in the breast, ague, scurvy, cancer, &c.

♄in ♌signifies the heart afflicted by grief or poison, consumption of the reins or inward parts, vapours, weakness, and pains in the back, &c.

♄in ♍shews the blood corrupted, obstructions in the bowels, costiveness, weakness in the thighs, melancholy, gripings, stone, &c.

♄in ♎shews the blood corrupted, back and kidneys distempered, strangury, consumptive pains in the knees and thighs, sciatica and gout.

♄in ♏denotes swellings or distempers of the secret parts, melancholy, piles, palsy, gout in the hands and feet.

♄in ♐signifies weakness in the hips and thighs, old aches and bruises in those parts, and sciatica or gout.

♄in ♑denotes the gout in the lower parts, pains and obstructions in the head, ague, &c.

♄in ♒signifies disorders in the head and teeth, defects in the ears, pains in the joints, bruises, swellings in the legs, and sometimes a sore throat.

♄in ♓gives defluxions of rheum, king's evil, consumption, all distempers of the feet and toes, such as the gout, and illness by colds.

DISEASES OF JUPITER.

♃in ♈produces distempers in the head, a quinsy or swelling in the throat, chiefly from ill blood in the veins of the head; and causes strange dreams and imaginations.

♃in ♉brings distempers in the throat, wind in the blood, gripings in the bowels, and goutish humours in the hands and arms.

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♃in ♊.--A pleurisy, or some disorder of the reins.

♃in ♋gives the dropsy, the stomach offended, bad appetite, corrupt blood, scurvy, surfeits, &c.

♃in ♌indicates a fever, pleurisy, the heart ill affected.

♃in ♍indicates a consumption, obstructions of the lungs, melancholy, cold and dry liver.

♃in ♎shews the patient hath too much blood, whence arise obstructions, corrupt blood, fever, piles, tumours, inflammations, &c.

♃in ♏signifies the strangury, piles, the blood discharged with watery humours, whence arise dropsy, &c.

♃in ♐denotes some choleric distemper, arising from putrefaction of the blood; a fever, pains and swellings about the knees, &c.

♃in ♑.--The patient is afflicted with melancholy, obstructions in the throat, &c.

♃in ♒.--The blood abounds too much, whence it is corrupted, and many diseases and flying pains afflict the body. It gives lumbago.

♃in ♓.--The blood is too thin and waterish, which breeds dropsy.

DISEASES OF MARS.

♂ in ♈signifies the patient is almost distracted with a violent pain in his head, rheum in the eyes, want of rest, &c.

♂ in ♉denotes extreme pain in the throat and neck, king's evil, weakness in the loins, and the gravel or stone.

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♂ in ♊ shews the blood is corrupted; itch, breakings out, surfeit, fever, pains in the arms and shoulders, disorders in the secret parts, strangury, &c.

♂ in ♋ indicates pains in the breast and stomach, a dry cough, or a tumour in the thighs: accidents to the feet.

♂ in ♌ denotes affliction at the heart, choleric humours, gravel in the kidnies, pain in the knees, &c.

♂ in ♍ signifies choleric humours, obstructions in the bowels, bloody flux, worms in children, humours in the legs.

♂ in ♎ produces diseases in the reins and kidnies, stone or gravel, urine hot, lues, &c., as may be suspected.

♂ in ♏ shews a suspicion of some venereal distemper, or ulcer in the secret parts, pains in the bladder, pains in the head, overflowing of courses, &c.

♂ in ♐ produces pain or ulcers in the hips and thighs by humours settled in those parts, and an extreme heat in the mouth and throat.

♂ in ♑ denotes lameness in the knees, hands, or arms, or a flying gout.

♂ in ♒ signifies blood over-heated, pains in the legs, surfeit, or fever.

♂ in ♓ gives lameness in the feet, by corrupt humours settled there; sometimes the heart is afflicted, &c.

DISEASES OF THE SUN.

☉in ♈ produces sore eyes, megrims, head disturbed. fevers, &c.

☉in ♉ denotes tumours in the knees, quinsy or sore throat, breakings out and swellings in those parts.

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☉in ♊.--Blood inflamed, pestilential fevers, breakings out in several parts of the body, scurvy, pains and weakness in the legs.

☉in ♋shews the measles or small pox, a disordered stomach, hoarseness, dropsy or swelling in the feet.

☉in ♌indicates violent pains in the head, madness, stone, pains in the back, plague, spotted fever.

☉in ♍produces humours in the bowels, obstructions in the stomach, bloody flux, sore throat, or swellings in the neck.

☉in ♎.--Inflammation of the blood, pains in the arms and shoulders, stone and gravel, the venereal distemper, &c.

☉in ♏indicates distempers in the secret parts, sharpness of urine, obstructions in the stomach, and female courses; also *phlegmatiæ dolens*.

☉in ♐.--The thighs are afflicted by hot humours; a fistula, fevers, swoonings, &c.

☉in ♑signifies lameness about the knees, bowels disordered, and a fever.

☉in ♒.--The blood inflamed, breakings out, reins disordered, gravel, stone, strangury, &c.

☉in ♓.--The secret parts afflicted, strangury, and violent pains in those parts.

DISEASES OF VENUS.

♀ in ♈indicates the disease is in the head from abundance of moist humours, lethargy, reins afflicted, and head disordered by cold.

♀ in ♉signifies pain in the head or secret parts, swellings in the neck from moist humours in the head.

☿ in ♊denotes a corrupted blood, king's evil, dropsy, and a flux of rheum

☿ in ♋shews the stomach is much offended with cold, raw, undigested humours; many times with a surfeit, &c.

☿ in ♌.--Some ill affection of the heart, love passion, &c., pains in the legs, of bad consequence.

☿ in ♍shews some distemper in the bowels, a flux, or the worms, mucus in the bowels.

☿ in ♎denotes a gonorrhea or distemper in the reins, or surfeit by too plentiful eating or drinking, and windy disorders.

☿ in ♏produces some venereal distemper, and pain in the private parts, &c.

☿ in ♐.--Hip gout, surfeits, cold and moist humours.

☿ in ♑produces gout in the knees and thighs, and swellings in those parts.

☿ in ♒.--Pains and swellings in the legs or knees from a cold cause, and the heart afflicted.

☿ in ♓indicates lameness in the feet, swellings in the legs, a flux, windy complaints, &c.

DISEASES OF MERCURY.

☿in ♈shews the disease lies in the head and brain, vertigo and spasms in the head, and sometimes disorders of the womb.

☿in ♉produces defects in the throat, swellings in the neck, hoarseness, and also pain in the feet.

☿in ♊signifies windiness in the blood, gouty pains in the head, arms, &c.

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☿in ♋produces a cold stomach, gripings, windiness, distillation of rheum, lameness in the legs and *knees* from colds, &c.

☿in ♌indicates tremblings, melancholy, pains in the back, occasioned by colds caught in the feet.

☿in ♍imports much wind in the bowels, obstructions, pains in the head, short breath, and wind cholic.

☿in ♎shews stoppage of urine, obstructions, blood disordered; breast, lungs, and reins afflicted.

☿in ♏denotes distempers in the secret parts, afflictions of the bowels, running pains in the arms and shoulders.

☿in ♐shews distempers in the reins, weakness in the back, stoppage at the stomach, coughs, swellings in the hips and thighs.

☿in ♑denotes stoppage of urine, goutish humours above the knees, pains in the back, melancholy, &c.

☿in ♒imports wind in the blood, running pains in different parts of the body, fluxes and disorders in the bowels.

☿in ♓signifies pains in the head, weakness in the legs and feet, a gonorrhea, or a distemper in the reins, &c.

DISEASES OF THE MOON.

☽in ♈signifies convulsions, defluxions of rheum from the head, lethargy, weakness in the eyes, and pains in the knees.

☽in ♉produces pains in the legs and feet, swellings, stoppage in and sore throat, &c.

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☽in ♊ denotes a wandering gout in the legs, arms, hands, and feet, surfeits, and great obstructions.

☽in ♋ shews the stomach much afflicted, a surfeit, small-pox, convulsions, falling sickness, tympany, or dropsy.

☽in ♌.--The heart afflicted, sore throat, quinsy, king's evil, &c.

☽in ♍ signifies great pain and disorders in the bowels, melancholy blood, obstructions, weakness in the arms and shoulders.

☽in ♎ denotes the reins are distempered, obstructions in the stomach, weakness in the back, whites in women, surfeits, pleurisy, &c.

☽in ♏ shews the distemper is in the secrets, small-pox, dropsy, poison, the heart afflicted, swoonings, &c.

☽in ♐ imports lameness or weakness in the thighs, distempers in the bowels, &c.

☽in ♑ signifies the stone, weak back, gout in the knees, whites in women, &c.

☽in ♒ signifies hysterics, swellings, and pains in the legs and secret parts.

☽in ♓ shews cold taken in the feet, and body disordered thereby; swellings in the legs, dropsies, and the body over-charged with moist humours.[105]

Chapter 30. The Seventh House, And Its Questions

This House signifies Marriage, Love Questions, Lawsuits and Controversies, Contracts, Wars, Duels, open Enemies, Bar-gains, Thefts, Fugitives, and all matters regarding Strangers.

THE questions to be judged by this house being more difficult than those of any other house, I have been more lengthy in delivering the opinions of the ancients as well as moderns thereon; and have written several aphorisms concerning its questions.

APHORISMS AND CONSIDERATIONS

FOR THE BETTER JUDGING ANY HORARY QUESTION, ESPECIALLY THOSE OF THE 7TH HOUSE.

1. See the question be radical and fit to be judged.

2. Be not confident of the judgment if either the first or last degrees of a sign ascend. If few degrees ascend, the matter is not yet ripe for judgment: if the latter degrees, the matter of the question is elapsed, or the querent has been tampering with other artists, or despairs of success. Meddle not with it at that time.

3. If ♄, ♂, or ♋be in the 10th house unfortunate, it will end in the discredit of the artist.

4. Judge not upon every trivial motion or light question, or when the querent has not wit to know what he would demand.

5. Observe well the strength and condition of ☽; for it is far better that the lord of the ascendant be unfortunate than the ☽.

6. The evil planets shew tardiness and difficulty in every question, unless ☽and they receive each other in the signification.

7. The benefits, ♃and ☌, never import evil but when ruling evil houses; and if they be significators without reception, even then they put forward the matter.

8. If ☽be void of course, there is no great hope of the question, unless she be in ♋, ♉, ♐, or ♓.

9. Observe from what planet ☽last separated; for it will shew what has already happened: if from a fortune, good; but from a malefic, evil; according to the nature of the house the planet rules and is in.

10. The application of ☽shews the present condition of the matter, and what may be expected. If ☽apply to a planet in his fall, it denotes trouble and delays.

11. If evil planets promise good, it will be imperfect or less than is expected, and come with much effort; and if they foreshew evil, it will be greater than may be feared.

12. If malefics threaten evil, observe whether ☉, ♃, or ☿cast any good aspect to them, for then the evil will be mitigated.

13. If the fortunes promise good, but are weak, or behold not the ascendant, they perform but little without reception.

14. A planet peregrine, viz. having no essential dignities at all, is very malicious.

15. Confide not too much in a fortune, unless he be in his essential dignities.

16. In a figure where both fortunes and infortunes are equally weak and ill placed, venture not a judgment, but defer the party for another time.

17. In all questions where the significator of the thing is combust, or in ☍to ☉, he can bring nothing to perfection.

18. If one infortune be joined to another, the good they promise will come to nothing; but the evil they threaten will be more violent.

19. The lord of the ascendant out of his dignities, cadent, &c., shews the querent out of all hopes in the business.

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20. A planet under the beams of ☉, (viz. within 12 degrees), has no fortitude;[106] if within *sixteen minutes* of ☉, he is in cazimi or heart of ☉, and then he is very strong.

21. If the dispositor of the significator be *oriental*, and he either ♄, ♃, or ♂, the matter is sooner performed; but if ♀ or ☿, later: the reverse, if they be *occidental*.

22. If the significator of the thing desired be in a *fixed* sign, it denotes stability, and that the thing shall continue, whether it be begun or is to be begun; if he be in *common* signs, it shews the probability of the matter, but not its conclusion; and if in *moveable* signs, a sudden resolution or concluding the matter one way or other. Hence we begin the foundations of buildings when the significators are fixed; short journeys when moveable; but things wherein a mediocrity is desirable, when they are in moveable signs.

23. The ☽or lord of the ascendant, with ♋, brings damage, according to the house they are in. The ☊is in like manner beneficial.

24. If in any question you find ☽afflicted, there is seldom any good comes of the matter.

25. If ☽or lord of the ascendant be in their fall, the querent despairs of the matter, nor does he much care whether it be performed or not.

26. Consider diligently the planet afflicting the significator of the thing demanded, and what house he is lord of, and where placed; from the nature of those houses require the cause obstructing.

27. The most powerful affliction to the ☽is when she is combust, and if she applies to ☉it is the worst.

28. If an infortune aspect your significator, and they be both peregrine or retrograde, you may judge that the mischief threatened is almost inevitable.

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29. Take especial notice whether any frustration or prohibition be before the perfect aspect of the significators; the planet which frustrates hinders the thing demanded.

30. In all questions of gain, look well to ⊕: the querent will get by persons or things connected with the house it is in; but if it be afflicted, he loses in the same way.

31. In questions of marriage, an evil planet in the 7th shews ill agreement in the married state.

32. If the lord of the 8th be unfortunate in the 8th, the querent will suffer by the death of some female; or, concerning debts due to him, by dead men.

33. In what house you find ♃or ♇ well dignified, expect benefits by men or things signified by that house; as if in the 3d, by kindred; in the 4th, by your father or lands, &c.; in the 5th, by play, pleasure, &c.; and so of the others. And beware of slander or damage through that house where ♁falls.

QUESTIONS CONCERNING MARRIAGE.

Whether a Man shall Marry?

If a man ask this question, let the lord of the ascendant, ☽, and ♇, also planets in the ascendant, be his significators. Then if ☽aspect favourably ☉, ♇, or lord of the 7th, or the lord of the 1st aspect the lord of the 7th, or be in the 7th, or the lord of the 7th be in the ascendant, or if most of these significators be in fruitful signs, or disposed of by ♇, the man shall marry.

Whether a Woman shall Marry?

Follow the same rules as above, but, instead of ☽and ♇, substitute ☉and ♂. If ♂ have no aspect or familiarity with ☉, it is a strong testimony of the negative.

The Time of Marriage.

The degree of the application of ☽to ☉or ♇, or of ☉to ♂, or the lords of the 1st and 7th to good aspect, or to ☐or ☍, if with strong mutual reception, or of the lord of the ascendant to the cusp of the ascendant, or the lord of the 7th to the cusp of the ascendant, must be noticed. And if the significators be swift, and the testimonies of marriage strong and numerous, moveable signs give days, weeks, or months, as the applying planet be angular, succeedent, or cadent; and common signs, in like way, give weeks, months, or years; and fixed signs give, in like manner, months or years.

Of Marriage with any particular Person who may be desired.

If the lord of the ascendant or ☽(or if the querent be a woman, the ☉) be joined to the lord of the 7th in any of his dignities in the ascendant, 10th, or 11th, the querent shall obtain the party desired.

If both significators behold each other by ✶or △ out of the ascendant and 11th, or out of the 7th and 9th, or 7th and 5th, and no frustration or retrogradation of the chief significators happen before the good aspect be completed, the match will be perfected, if the *querent* please. For we always suppose a FREEDOM OF WILL to do or not to do. And if there be a ☐or ☍between the significators, without reception, the matter will come to nothing.

A ☐aspect with reception will perfect the matter, but with some difficulty. If no reception be, there may be hopes, but no grounds to judge favourably.

When the lord of the ascendant is in the 7th, the querent loves best; and when the lord of the 7th is in the ascendant, the quesited loves best.

The match may be brought about, though there be no aspect between the significators, if there be any good translation of light; more especially if the planet who translates be a fortune, or be not retrograde, combust, or unfortunate, or afflicted by ♄or ♂. The

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person signified may be known by the description of the planet, according to the sign he is in, and the way he is aspected; and the quality of the person, from the house he is lord of. A masculine diurnal planet shews a man, and a feminine nocturnal planet a female, or an effeminate man, and *vice versâ*.

Testimonies that the Marriage shall be hindered.

Observe the planet who receives the light of the significators. If he be a heavy planet, and have the □or ☍of a malefic, or be cadent, the intended match shall be broken off, though at present never so feasible.

Remark which party's significator is strongest; that party shall first marry after this dissolution.

If the significators apply by an evil aspect without reception, or if there be no good aspect between the luminaries, there will be no marriage; unless the lords of the ascendant and 7th be placed in each other's houses, and the other signs be very decided for the match.

If the evil ♄be in the ascendant, he renders the querent cool, and but little inclined to marriage; unless he be very strong or well aspected. If he be in the 7th, he has the same effect on the quesited. He is generally an enemy to marriage, whereas ☌ assists marriage, and inclines the parties thereto.

What shall be the Cause of the Marriage being prevented?

Consider the evil planet who intercepts his rays between the significators, and hinders the marriage; and observe what house he is lord of, and where he is situated. If he be lord of the 2d, want of money will be objected to the querent, or he may fear to marry from lack of means.

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The lord of the 3d denotes that it will be caused by the querent's kindred or neighbours, or by means of some short journey.

The lord of the 4th shews that his father will not agree, or it may (especially if a feminine planet) be the mother of the quesited; or it may be for want of some settlement of houses or lands, &c.

The lord of the 5th causes obstacles by means of children, or by the querent having a character for loose living, &c.

The 6th denotes sickness in the querent, or opposition by some relation of his father, or by means of servants, or some private enemy of the quesited.

The lord of the 7th, or a planet therein, denotes a public enemy of the querent, or a lawsuit, or a rival.

The 8th denotes a lack of money on the part of the quesited; or, if other testimonies concur, it may be that the querent's death may intervene to prevent the match.

The 9th, in like manner, shews opposition by the relations of the quesited, or the interference of some lawyer or priest, or that the querent may go a long journey or voyage, and so the match be hindered.

The 10th and its lord shew the father of the quesited, or the mother of the querent, or some person having authority over the querent.

If it be the 11th house or its lord, then the friends of both parties dislike the match; or those who first introduced the parties, or endeavoured to bring it about, will now try to dissolve the connexion.

If it be by the lord of the 12th, or by a planet therein, there is some under-hand dealing or secret enmity to the querent. The affair shall be much retarded; but the querent shall

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never know by whom; or some private scandal will do much wrong, and quite break off the matter.

In the same manner that you may thus learn who will oppose the querent, you may ascertain who will assist him in his desires. And by varying the houses, you may know the persons who will aid or hinder the quesited.

To describe the Person and Qualities of the future Wife or Husband.

For the man, observe the planet the ☽is nearest in aspect with and *applying*; as if with ♀, say she is fair, slender, and pleasant. And according as that planet is found in any of the twelve signs, describe her person; and as it is aspected and dignified, her qualities; observing also the sign on the 7th house. And if there be any planets in the 7th, take that planet nearest the cusp; unless ☽aspect a planet there, then take that planet. For a woman, judge by the planet ☉applies to, in like manner; as if ☉be in ✶or △ to ♄, he is grave and laborious; if ♃, honest; if ♂, violent; if ♀, fond of pleasure and agreeable; if ☿active and industrious; and if ♅, strange and eccentric. If ☉and ☽are applying to □or ☍, there will be contention and discord.

Whether the future Wife or Husband shall be rich or not?

Observe the lord of the 8th and planets therein. If ☽apply by good aspect to the lord of the 8th, or good planets be there, or the lord of the 8th have a good aspect to the querent's ⊕, or other significators of property, the future wife or husband will be rich. If evil planets be in the 8th, or its lord afflict the ☽or ⊕, the querent will gain little by marriage. And if ♄and ♂ be both in the 8th, he gains nothing; and though the party may have property, the querent will be cheated of it, or lose it in some manner. The persons or means by which the property will be injured, may be discovered by observing what houses the afflicting planets are lords of for the persons, and what houses they are

placed in for the means; as ☿, lord of the 8th, being in the 9th, and throwing a ☐to ⊕, might denote a lawsuit respecting the future wife or husband's property.

Whether the Marriage be legitimate or not?

If the significators of either party be afflicted by ♄or ♂, or joined to ♇, it denotes some dispute about the marriage; and if other testimonies agree, a lawsuit may be the consequence.

How the Parties shall agree after Marriage?

If the figure promise marriage, observe whether the lords of the ascendant and 7th are in good aspect; or if the ☽behold with good aspect the planet disposing of her by house or exaltation, and the luminaries be in good aspect, they will agree.

If the lords of the ascendant and 7th be in ☐or ☍, or the ☽be afflicted, and behold the ascendant by ill aspect, or ♄, or ♂, or ♇, be in the ascendant, or 7th, they will live unhappily. If the ill planets, or ♇, be in the 1st, the querent is to blame; and if it be ♂, is given to quarrel, or be loose in conduct, according to the sign; and if they be in the 7th, it is the quesited. And judge the same way according as the significator of the 1st or 7th be afflicted. The ☽in her fall, or ☐or ☍of ♄or ♂, or any retrograde planet, and at the same time throwing any aspect to the ascendant, it is the man who brings on disputes, &c. If the ☉do the same, under the same circumstances, it is the woman.

The lord of the 7th angular, and the more weighty planet, the quesited will strive for mastery; and if neither the lord of the ascendant nor 7th be in angles, then note the weightier planet, for he points out the party who will rule. If ♀ be afflicted, it is worse for the man; and if ☉, for the woman. The ☽afflicted, is evil for both. The lights in evil aspects spew discord.

The Cause of Contention.

if the afflicting planet be lord of the 3d, and be in the 1st or 7th, he denotes quarrels, or injuries by neighbours or kindred. If it be an *infortune* who afflicts, and he be in the 10th, it shews continual brawls. If he be in the 4th, a divorce or willingness thereto; or some hindrance in the dowry or fortune of the female. Evil planets in the 10th or 4th lead also to contention by means of the parents of the parties. If ☽behold the ascendant, and be unfortunate, it denotes brawling, separation, or dishonest living. And if there be no application between the planet the ☽separates from and that one to which she applies, there will be continual contention. If ☽aspect evilly, or be in ♂with ♄or ♇, one of them shall die shortly, or have some misfortune; if in the 8th or 12th, (and she void of course), they meet troubles, grief, and sickness; and if in angles, long disagreements; and probably separation, if in a fixed sign. If this be in the 10th, and a masculine sign, the man is the chief sufferer; if in the 4th, and It feminine sign, the woman.

The Cause of Happiness.

The ☽in ✶or △ of good planets, shews gifts or benefits by friends; if in ☐, by the dead. If ☽be in ♂with good planets, by their own conduct or industry.

Arabic Aphorisms not to be trusted to, unless the other Testimonies concur.

The woman who departs from or loses her husband when ☽is in the last 13° of ♐, shall never return or marry.

The man who shall engage to marry when ☽is in the first 12° of ♑, shall lose his betrothed before marriage, or die within six months, or live in discord with her.

From what Part a Person shall Marry?

If the lord of the 7th be in the 9th, the querent shall marry a stranger. If the lords of the 1st and 7th be in one quarter of heaven, or in one house or sign, the person will marry one near to their own residence. Consider the sign of the 7th, the sign and quarter of

heaven the lord of the 7th is in; and judge by the majority of testimonies from what direction the querent shall marry; as if most of the testimonies be southern, the south, &c. Mix the sign and the quarter of heaven, preferring the former.

Which of the two shall be most honourable in Connexions, &c.

If the lord of the ascendant be angular, and the lord of the 7th succeedent, the querent is best connected, and *vice versâ*. In like manner you may judge of any two individuals. A more assured way is, by observing which of the two significators is the most powerful in dignities. You may combine the two systems.

Whether a Lady have a Lover besides the Querent?

If there be any planet in the 7th, (if it be not lord of the 7th), she has one of the description of that planet. The lord of the 7th, or ☉joined to ♂, she has a lover with whom she is familiar; but, (unless other and very evil testimonies accord), not improperly. The lord of the 7th void of course, or with ☊, or if no planet be in the 7th, judge that she has none: and if the lord of the 7th aspect only the lord of the ascendant, judge the same.

If either the lord of the 7th, or the ☉be joined to the lord of the triplicity then ascending, and ☉separate from the lord of the ascendant, it seems that she has some friend that she loves besides the querent.

The lord of the 7th, or the ☉, or both, separating from any other planet but the lord of the ascendant, and he not separated above three degrees, the lady did love another, but she has now left him. If the lord of the 7th be with ☊, she is blameless; unless there be another planet in ♂with them, and then she is not. And if it be ♉, she is faulty in her desires and affections; and if evil testimonies concur, such as aspects of ♂, or the ♂be in ♏, it may be feared in acts also.

If the ☉, or lord of the 7th, be in ♂with ♂, and ☊be there, she loves a martial man, yet he cannot prevail on her entirely. If ♁be there, she is sore pressed to comply. If they be near, or within very few degrees, the gentleman resides near her house; and if in the same degree, he is in the house, if it be a fixed sign; or frequently visits the house, if it be a moveable or common sign.

If ☉, or lord of the 7th, separate from ♂, she had formerly a lover, but now they have forsaken each other. If ☉be lord of the 7th, and be in ♂with ♂ or ♃in any sign whatever, the lady has loved or does love a person described by ♂ or ♃; and he has rank as an officer, gentleman, or clergyman. And if there be mutual reception, they still love one another, and many acts of kindness pass between them.

If the ☉or lord of the 7th be joined to ☿, the lover is a young clerk or merchant; lawyer or writer; a witty, nimble fellow. His age may be judged by the number of degrees is in the sign.

If the lord of the 7th be joined to ⚲ with reception, (and it be a female who is inquired of,) then she cares little for the men; but is fond of female society, is rather free in her language, but not naturally vicious. If it be a male who is the quesited, he is found much in female company, and is partial to such an one as ⚲ may describe, according to the sign she is in. If the aspect be ✶or △ and with mutual reception, the lady is partial to him; but if the ☽or lord of the 7th dispose not of ⚲, she cares not for him, unless the aspect be very close and in angles. And if the aspect be evil, there is no mutual regard, without there be very strong reception.

The lord of the 7th joined to ♄, she loves, (or did love if they separate), an elderly person, or farmer, &c.

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The lord of the 7th joined to ☉, she loves some person of consequence, according to her rank in life; and if with mutual reception, he may do what he please with her. If they separate, or there be no reception, the feeling is passed away or was never mutual.

If other planets aspect ☉and the lord of the 7th, especially ♄or ☿, she has other admirers, &c.

If the lord of the 7th aspect ☽, or the ☽be in the 7th, especially if they be then in aspect, or ♂ be in aspect with ☽, she is given to change and acts discreditably, yielding up her affections upon slight solicitation.

Generally, you may consider that if ♂ be in the 7th, unless he be in his own house, the lady has a lover. If ♄she loves one, but there is no familiarity between them; if ♃be there, she is honest; if ♀, she is giddy and merry, and is thought to be wanton, but is not; if ☿, she had a friend, hut has not now; and if ☽, she has not yet, but will have more than one. If ☉or ☊be there, she is virtuous and honourable, and has no lover other than the querent. ♉denotes discreditable desires at least.

Whether a Gentleman have a Lover besides the Querent?

You may judge this question exactly by the rules for judging of a lady, if you substitute the ☽for the ☉and ♀ for ♂. You may in like way judge of *friends* by taking the 11th for the 7th.

Whether a Damsel be virtuous or not?

Behold the lord of the 7th, the cusp of the 7th, and the ☉; and if they be in fixed signs and well aspected, you may judge that she is correct. If ♂ be in ♌and ♏descend, she is suspected, but yet is honest. If ♏descend and ♂ therein, it is suspicious; and if there be a moveable sign on the 7th, or the ☉and ♂ be in common or moveable signs, and be ill aspected; and if ♂ and ♀ be in ill aspect, or the ☉or ☽behold d, and the evil stars

aspect them from fixed signs, there is great reason to doubt. Yet if there be *any good aspect* to either the 7th or its lord, ♂, or ☉, it is not safe to judge the lady to be unchaste, though she may have been much tempted. The student will do well to avoid a positive judgment *unfavourable* on this head, unless *all* the testimonies are decided.

If there be great reason to doubt, then observe whether ☽be in the last face of ♊, or in a moveable sign, and in the 5th house, and the lord of the 5th in the ascendant or 7th, and in a moveable sign, and either of them in aspect to ♂; or the lords of the 5th and 7th in ☌in one sign. If all these, or nearly all, concur, you may be more confident that the lady is faulty.

Whether the Child conceived is the Child of him who is the reputed Father?

Observe the lord of the ascendant, and the ☽, who signify the querent; then observe the sign of the 11th, and its lord, which signify the issue in conception. If these significators behold one another by ✶or △, with reception or not, the conception is legitimate, viz., the child of its supposed father. If they aspect each other by □or ☍with reception, and perfect aspect; or the lord of the ascendant or ☽be in the 5th, or the lord of the 5th in the ascendant, without the evil aspect of the infortunes, or if one of the fortunes behold the cusp of the 5th or its lord, then also is the child begotten by its reputed father. But if none of these things be, and ♄, ♂, or ☿behold the 5th or lord thereof, there may be just suspicion that the child is conceived in adultery, or is not the child of the querent.

Whether a Woman living from her Husband shall ever return to him, or be restored to Favour?

This question will equally resolve a doubt concerning a mistress or *person beloved*.

If the woman herself propose the question, consider the lord of the 7th, (for the 7th is ever given to the banished or expelled party;) and if the lord of the 7th behold the

ascendant with a perfect aspect, and the lord of the ascendant be hold the 7th, or its lord, without doubt she shall again come into favour. If the lord of the 7th do not behold the ascendant, bat another planet, who is not afflicted, behold the ascendant, the woman shall be received again through some person who shall interpose his friendship with the husband or friend. If none of these things be, observe ☽and ♂; and if ☽be above the earth, and ♂ behold the ascendant with ✶or △, she shall return quietly, and without much trouble.

If ☽be under the earth and ♂ above, and behold the ascendant with ✶or △, she shall return, but with trouble and delays, and with much publicity. If ☽aspect the ascendant favourably, and be not afflicted, she shall return, but with solicitation. If ☽decrease in light, but be not near the beams of ☉, and behold the ascendant, she will return easily and speedily.

If ♂ be retrograde, and hasten to aspect with ☽, she will of her own accord return; but if ♂ and ☽, or the lords of the 1st and 7th, separate from good aspect, they have no mutual desire to return, nor will the lady much respect the gentleman for the future.

OF RUNAWAY SERVANTS, CATTLE STRAYED, AND THINGS LOST.

The significator of the thing missing is the ☽; wherefore if you find ☽applying to the lord of the ascendant, or to the lord of the 12th, (being herself in the ascendant,) or to the lord of the house of the ☽, the thing missing shall be found again. But if ☽apply to none of these, nor be in the ascendant or 2d, the thing lost shall not be found.[107] If the lord of the house of ☽be in the 3d, or in ✶to the ascendant, there is some hope of finding the thing again during that aspect with the degree ascending. Also, if he separate from the lord of the 6th, 8th, or 12th, and apply by any aspect to the cusp of the 2d, or behold the ☽, you may hope to find it. But if there be contrary indications between these, judge the reverse.

If the ☽be aspected well by both fortunes, the thing lost is in the hands of some trusty person; and if ☽or one of the fortunes behold the ascendant, he will restore it to the owner.

The Place where the Thing lost is.

This is shewn by ☽, according to the sign she is in; for if the sign be eastern, it is east; and if west, it is western, &c. Observe also the place of ☽in the figure; for if she be in the ascendant, it is east, &c., but prefer the sign. If the lord of the house of ☽be in human signs, (♊, ♍, ♒, or the first half of ♐), it is in a place where men frequent. If in signs of small cattle, as ♈or ♑, it is where they are found. If ☽be in a fiery sign, it is where fire is; if in a watery sign, where water is, &c. If ☽be in the same quarter as the Lord of the ascendant, and there be not more than 30° between them, the thing lost is in the house of the owner, or about it; if they be above 30° and less than 70° apart, it is in the town where he resides; but if they be not in one quarter, it is far from the owner.

How the Thing was lost.

Observe from what planet the lord of the ascendant last separated. If from ♄, it was through forgetfulness of the owner; or through cold or illness which afflicted the loser, especially if ♄be retrograde. If from ♃, it was through some abstinence, or ordering of laws, or by excess of care in managing affairs, or putting too much trust in the person by whom it was carried away or mislaid. If from ♂, or the lord of the ascendant be in the house of ♂, it was lost through fear or some sudden passion, provoking the loser to anger; or by fire, or by enmity, or upon some quarrel. If from ☉, by means of the king or some gentleman, or the master of the family, or by hunting or pastime. If from ♀, or in her house, by drinking, cards, &c., or making merry in a tavern, &c., or by singing or dallying with women. If from ☿, by writing, letters, messages, or going a message, &c. If

from ☽, by too frequent use, or chewing the thing lost, or making it too common; or some messenger, widow, or servant lost the same.

If it be an Animal, and you would know whether it be stolen or not?

If you find the lord of the house of ☽separating from any planet, say that it went away of its own accord. If that lord be not separating, but another planet be separating from him, say that some person took it away. If the lord of the house of ☽be in neither of these cases, look to the lord of the 2d house, and judge by him in the same way. And if you find no separation of either of these two lords, say that the animal is still in or near its place, and is not gone away.

Whether it be dead?

Observe the ☽; and if you find her in application to the lord of the 8th house from her, say it is dead. But if you find no such testimony, observe her dispositor; and if you find him applying to the lord of the 8th house from the Moon, say likewise that it is dead, or will shortly die; but if in neither of these you find application, take the lord of the 8th house of the figure in the same way; and if neither ☽nor her dispositor apply to it, then the animal is not dead.

Whether the Thing missing be stolen?

If the significator of the thief, (usually the lord of the 7th, unless there be any peregrine planet in an angle), be found in the ascendant, or disposing of the ☽, or ☽disposing of him, or the lord of the ascendant be disposed of by him or dispose of him, or unless he apply to the ☽or lord of the 1st or 2d, or ⊕, or its lord by ☌, ☐, or ☍, or some planet be in the ascendant, and be in ☐or ☍to the significator of the thief, the thing is *not* stolen. Generally any ill aspect of any evil planet, or the lord of the 7th to the ascendant or 2d house or their lords, or ☽or ⊕, or their lords, denote that the thing is stolen.

Whether a Thing lost shall be found?

If ☽apply to the lords of the ascendant or 2d, or to her dispositor, it shall be found. ☽in the ascendant, or her dispositor in ✶or △ thereto, give hopes; the dispositor of ☽separating from the lord of the 6th, 8th, or 12th, and applying to the lord of the ascendant or cusp of the 2d, give hopes also; and if ☽be in aspect to her dispositor, it is good. But ☽afflicted by the lords of the 6th, 8th, or 12th, it is in the hands of an evil person, who will not part with it; especially if an infortune afflict the ascendant or its lord. ☽in △ to the ascendant, its lord or ☉, or in the ascendant, or ☉there, unless in ♎or ♒, it shall be found.

The Kind of Place a Thing lost is in?

If ☽be in a human sign,[108] it is in a place where men frequent; and if in a brutal sign (♈, ♉, ♌, ♑, and the last half of ♐), the thing is where animals frequent. If ☽be in fiery signs, it is where fire is or has been, or near a fire, or on hills or high ground; if in watery signs, where water is or has been;[109] if in airy signs, where many windows are, or open places, garrets, &c.; if in earthy signs, in an earthy place, where houses are built of mud, clay, &c., and in brickfields. The ☽, or her dispositor, in a moveable sign, shews a place newly peopled, or a house newly built, or where there are hills and dales: if in a fixed sign, in a level plain country; if in a common sign, in a place of much water, according to the nature of the thing missing. Also ♊, ♍, ♐, ♓, shew, if it be not living things, within the house; but if cattle, &c., they shew ditches, pits, and among rushes, or in a marketplace. ♉, ♌, ♏, ♒, shew that the things are laid low or hid in the earth, or near walls, in hollow trees, &c. ♈, ♋, ♎, ♑, shew high places, roofs, ceiling, &c., but watery signs denote about the foundations of houses, or cellars, if water he there.

Of Animals missing.

If the lord of the 6th be in the 6th, they are small animals; if the lord of the 12th be in the 12th, they are large. If the lord of the 6th be in the 12th, they are in pound; and if in a fiery sign, locked up. If ☽be in common signs, they are in rushy grounds; if in an angle, they are in enclosed ground; if in a succeedent, they are near enclosures; if in a cadent house, they are on commons. If in watery signs or ♒, near fish-ponds or other waters; and if in the last moiety of ♑, they are near ships, or on shipboard, or near some wood or timber-yard.

Whether it shall be restored?

The ☽aspecting ♃or ☌, it is in the hands of an honest man, who will restore it. If ♃or ☌ have any aspect to the ascendant, or ☽apply to the ascendant, it will be restored; and if ☽be in the ascendant, it is restored without trouble or pain. The lord of the 7th, or 12th in the 12th house, the fugitive is imprisoned.

If the ☽be within 30° of the lord of the 1st, the thing is with or near the loser; if ☽be more than 30° off the lord or the 1st, it is far off.

If it be animals, and the lord of the 6th, (or if large cattle the 12th,) be fortunate by the good aspects of ☌ or ♃, or they be found in the 2d, 5th, or 11th, the animals will be had again. The same if the lord of the term in which ☽is, or the lord of the cusp of the 4th be with the lord of the ascendant, or the lord of the 6th or 12th be in △ to ☉out of angles.

Of a Fugitive, and whether he shall be found or return?

The lord of the 7th in the ascendant, he will return of his own accord.[110] If ☽separate from the lord of the ascendant, and be joined immediately to the lord or cusp of the 7th, news will shortly be brought of him. The lord of the 7th combust, he shall be found against his will. The ☽afflicted by ♅, ♄, ♂, or ♇, or a retrograde planet, he shall be found or return, after much suffering. ☽separating from ♃or ☌, he shall quickly come back; and

if she aspect her own house by ✶or △, he will return or shall be heard of within a very few days.

The lord of the 7th aspecting an infortune from the 7th, the querent will discover the quesited with some person, to whom he must give money before he can have him back. If the lord of the 7th be retrograde, it is a testimony of his return.

OF THEFTS.

The ascendant is for the querent, and its lord for him that has lost the goods; and it signifies the place from whence they were taken.

The 7th house and its lord, or the peregrine planet in an angle, signify the thief.

The 2d house, its lord, and the ☽, signify the things lost ar stolen; and the 4th house, and its lord, shew the place where they are conveyed to, and then are.

The aspects of ☉and ☽, the lords of the 1st and 2d, and the dispositor of the ☽, by application to each other, shall shew whether they will be had again or not.

If the lord of the 2d and the ☽be in the 7th, and the lord of the 7th behold them both by ✶or △ (though the aspect be several degrees distant), then are the goods taken away by some one, and not merely lost.

If ☽be lady of the 2d, and going to ♂of the lord of the 7th, then has the party mislain it; and the thing is neither lost nor stolen.

If ☽be lady of the ascendant, and in the 4th, and the lord of the 2d be in the 7th or 8th in ✶or △ of ☽, the thing is not stolen, but taken away in jest.

If ☽be lady of the ascendant, and be in it, and ☉lord of the 2d in the 10th, with the lord of the 7th, and the lord of the 7th □☽, then are the goods stolen and taken away. If ☽be in the 3d, and in □to the lord of the 7th, and the lord of the 2d be in the 7th, it was first

taken in jest, but is now stolen, and will be hard to recover, unless ☉and ☽aspect the ascendant.

If ☽be lady of the 5th, and in ♑, and ☠ lady of the 2d to the 10th, and ☽in ♂to the lord of the 7th, then has the party lost the goods as he went by the way, or left them in some place. If ☽be in ♋in the 8th, and the lord of the 2d in the 5th, and neither of them behold the lord of the 7th, and he be in the 7th, the goods are taken away in jest by the master of the house, and he will deny it. If ☽be in the 4th in ♂to its lord, and the lord of the 2d in the 12th in ✶to the lord of the 7th, then has somebody taken away the things in jest. If ☽be in the house of the lord of the 7th, and be in the 12th, not beholding the lord of the 7th, and the lord of the 2d be in the 6th, then are the goods removed in jest; and if, in this ease, the lord of the 2d did last separate from the ruler of the ☽, they will scarcely be had again. If the ☽separate from the lord of the 2d by □, they are taken away end stolen; and the same, if the ☽, being lady of the 2d, separate from the lord of the house wherein she is.

If the lord of the ascendant separate from ♃, (he not being lord of the 7th, or peregrine in an angle), or from the lord of the 2d, the querent has lain it down and forgotten it, and so it was lost; but, when both the lords of the 1st and 2d separate from ♃, this is surer. If (in such case) the lord of the 2d, or ♃, separate from the lord of the ascendant, then did the party lose the goods by the way as he went, or in some place where he was, or they fell out of his pocket accidentally, and they are neither found nor stolen. But if there be none of these separations, see if the peregrine planet, or lord of the 7th apply to ♃, or the lord of the 2d; then, if they do, the goods are absolutely stolen. If the lord of the 2d, or ♃, apply to the significator of the thief, he came easily by them, and did not come with intent to steal; but, seeing the thing unprotected, he was tempted to steal.

If the significator of the thief aspect the lord of the 1st or 2d, or the cusp of the 2d, or ⊕, or ☽, or their dispositor, or the planet in whose term ☽is, or if he be in the ascendant, it is stolen; but, if there be no *evil* aspect to any of these, it is not stolen.

Of the Age of the Thief.

Guido Bonatus says, that if the thief's significator be ☿, he is very young; if ♀, rather older, but yet a young female; ♂ shews him of full age; ♃of middle age, and ♄, elderly. If the ☉be his significator, and be between the ascendant and 10th, he is young, and so increasing in age until he come to the angle of the earth. If the ☽shew the thief, his age will correspond to her age; and in all cases judge *also* by the position the thief's significator has reached in the sign where he is found. If he be just entered the sign, quite young; if in the middle of the sign, of middle age; and if towards the end of the sign, elderly; and if ♄aspect him any way, it adds to his age. Oriental planets denote also younger persons, and occidental planets elderly persons. You must consider all the testimonies before you judge the thief's age.

Whether the Thief be Male or Female?

The significator of the thief being masculine, and in a masculine sign, and the ☽in a masculine sign, it is a male; *et e contrâ*. The angles of the figure masculine shew a man; and if feminine, a woman. If ♀ or the ☽be the significator, or, when aspecting them, it is a female; ♄, ♃, ♂, ☉, and ☿aspecting them, a male.

Whether one Thief or more?

If the significator be in a fixed sign, it denotes one only; if he be in double-bodied signs, it denotes more than one, especially if there be more than one planet in the sign, and they peregrine. Also, when ☉and ☽are in angles, and in □aspect, it shews more than one. If the significator be in ♋, ♏, or ♓, it is a testimony of there being more than

one; the angles being moveable, the same. The ☽in the ascendant, and in a double-bodied sign, shews more than one. And if the significator be in aspect with more than one planet, unless he be in a fixed sign, it shews plurality.

Of the Colour of the Thief's Clothes.

This must be judged in a general manner; and by the colours of the signs and houses of the significator, and the planets ruling them. Thus, ♄is black; ♃green, spotted, or ash; ♂ red; ☉tawny, or saffron, or sandy; and if you mix the colours according to the signs and planets, &c., you will judge very nearly the general colour of the thief's clothes. Thus, ♄and ♃mixed, give dark green, or green spotted with black; ♄and ♂, a dark reddish brown, or tawny; ♄and ☉, a blackish orange, and shining; ♄and ♀, a whitish grey; ♃and ☿, a black blue; ♄and ☽, a deep russet, or grey; ♃and ♂, a tawny, light spotted; ♃and ☉, a deep, shining red; ♃and ♀, a greenish grey; ♃and ☿, a spotted green; ♃and ☽, a high-coloured green; ♂ and ☉, a deep red, or scarlet; ♂ and ♀, light red, or crimson; ♂ and ☿, a tawny red, or brick colour; ♂ and ☽, a light red, glistening.

You must observe, that if the signifier be ♄, in his own house, ♑, and not in close aspect with any other planet, the thief will be dressed all in *black*; because both sign and planet rule that colour. But if he were in the 1st house, which rules *white*, he would have some *white* about his person. Also, if it were ♂, who rules *red*, and he were found in ♏, which rules *brown*, he would denote a rusty, dirty, reddish brown; but if he were in ♌, which rules *red and green*, and ♃were in aspect, there would be much *green*, as well as *red*, about the dress; and so of the ethers.

The relation the Thief bears to the Owner.

The lord of the 7th, or significator of the thief, being in the ascendant, it is one well known to the querent, or one who frequents his house; and is in no way suspected.

If the significator of the thief be in the 2d, it is one of the household, or an acquaintance; but if in a feminine sign, it may be the querent's wife or maid-servant; and it is in the loser's power, and may be recovered by money.

If he be in the 3d, it is one of his near kindred or neighbours; or some messenger, or ether person, often in his sight.

If in the 4th, it is his father, or some elderly person, or one who resides in the house. &c., of his father; or he is a labourer or farm-servant.

If in the fifth, it is his son or daughter, or one of the near relations of his brother or sister, or near neighbour; or one of the household of his father, or his kept mistress, or some one connected with taverns, theatres, &c.

If he be in the 6th, it is a servant, or the querent's father's relation; or it is some person in bad health.

If he be in the 7th, it may be his own wife or lover, or some female who has been suspected of having connexion with the querent: or it is some person with whom he deals publicly, or one who is his open enemy.

If in the 8th, it is a stranger; yet it is likely to be one who is, or has been, at times employed about the house, such as an occasional gardener, or charwoman, washerwoman, &c.

If in the 9th, it is some traveller or vagrant, or some person employed about churches, &c.; or a person in connexion with some jailor, or master of a workhouse, &c.

If in the 10th, it is a person of respectable circumstances, or some master tradesman, &c.; one not necessitated to turn thief; and, generally, a person who lodged in the house, or visited it frequently when the thing was taken.

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If in the 11th, a friend, or one who is trusted, and has done the querent some service; or one connected with a neighbouring clergyman, or the household of the querent's mother.

If in the 12th house, it is a stranger, or some poor, common thief or beggar; a person in miserable circumstances, who partly lives by thieving or thief taking.

Other Particulars of the Thief.

If the thief's significator be in the end of a sign, or applying to a planet in the 3d or 9th, he is going off; and if it be a superior planet, and leaving a sign, he is undoubtedly leaving his house or lodgings, &c.

If his significator be in an angle, he is still in the town; if succeedent, he is not far off; but if cadent, he is far gone.

If it be in an angle, he is in a house; and if ☽be in an angle, in his own house, &c.; if in a succeedent, in a field or enclosure; and if ☽be succeedent, it is his own, or where he resides; and if in a cadent house, he is on a common or open place, and if ☽be cadent, it belongs to the town, &c. where he lives.

If the lord of the ascendant and the significator of the thief be together, the thief is with the querent. And if the thief's significator be in the ascendant, the thief will be at the querent's house before the querent. But if the significator be in the 7th, he is hid at home, and dare not be seen. The direction in which the thief lives may be judged by the sign and quarter in which the significator is.

The ☽denotes also the door of the thief's house. If she be in a fixed sign, the house has but one door; if in a moveable sign, the door is high above the earth, and it is probable that there is another smaller door. If ♄aspect the sign of the ☽, the door has been broken, and often repaired, or is old or black. If ♂ aspect it, the gate or door has some

mark of fire. If ♄and ♂ both have a friendly aspect to the sign the ☽is in, the door is iron, or is very strong. If be afflicted, it is broken or injured; and if ☽be decreasing, and near ☉, the gate, &c. opens on the back premises, and there is no front door to the street; if she increase, and is near ☉, it is low down, and there is a step to descend in entering. But if ☽e in a moveable sign, there are steps up to it.

Whether the Goods are in the Hands of the Thief?

If the thief's significator be in aspect to, and disposed of by another planet, they are not in his hands; otherwise they are.

The Place where the Goods are.

The nature of the place is judged by the lord of the 4th house. If he be in a moveable sign, it is in a place high above the ground; in a fixed sign, in the earth; and in a common sign, it is under the eaves of a house, &c.[111] And you must judge also by the quality of the sign; as ♈shews a place where small cattle are, as sheep, hogs, &c. ♌shews a place of animals that bite, as dogs, foxes, &c.; ♐a place of animals that are ridden, as horses, mules, &c., and their stables. ♉, ♍, and ♑shew a place of large cattle, as ♉oxen, kine, &c.; ♍and ♑shew camels, mules, asses, &c., ♍also shews barns where corn is kept, and a place about the earth. ♑denotes goats, hogs, &c.; ♊shews a wall or partition in a house; ♎a high part, or near a closet or little house; ♒shews near a door, above another door or gate in a high part; ♏shews a place of unclean water; ♓a place always moist. But if the ☽be in the same sign with the lord of the 4th, judge by her more than him.

In what Part of a House Things lost, stolen, or concealed may be.

If the thing lost be in the house, (whether stolen or not), behold the lord of the 4th, (or, if a planet be in the 4th, take him in preference.)

If it be ♄, it is in a dark or secret place; and if he be in aspect with ♂ or in the house of ♂, it is in or about some dirty place, where people seldom go, a privy, &c.

If ♃, a place of wood, bushes, &c.

If ♂, a kitchen or place where fire is kept; if aspected by ☿, a shop.

If ☉, the hall, dining-room, or chief room where the master frequents.

If ♀, a bed, or among bed-clothes, or where females much frequent. In this case ♎would shew the top of the bed.

If ☿, a place of books, pictures, carving, &c.; and if ♍, where corn is.

If ☽, it is in a pit, cistern, or washing place.

Description of the House or Place where the Things are that are lost, &c.

The ☉describes the house, and also its front entrance. If he be in an airy sign, it is high, &c., and its colour may be known by the sign and house he is in. The ☽describes the cellar, pump, or place holding the water; as, if she be in ♒, it is a cistern, high above the ground, &c.; if ♏, a low pit or pond; if ♍, a deep well. ♀ shews the place of mirth, female apartments, &c. ☊denotes the stairs or ladder to climb by, &c. ♉describes the place the wood is in, or the animals are kept. ☿denotes the room, &c.; if in a common sign, it is a cupboard, or small room within another; if in a fixed sign, it shews a house having no cellar, or a single chamber. If ♃, ♀, or both, be in the 10th, the door has a fair appearance, and opening; if ♄be in the 10th, the door is near some ditch, pit, or deep place; if ♂ be there, there is a fire-place near the door, or place for killing animals; if ☿be there, near the door is a place where tools or instruments are kept; if ☉be there, then there is some seat or porch near the door; and if ☽be in the 10th, there is near the

entrance a door to go under ground, a trap or cellar door, or some other convenience in very common use.[112]

The Nature of the Thing stolen.

This is judged by the lord of the 2d house. ♄shews lead, iron, things of a black or dark blue colour, wool, black garments, heavy things, earthy materials, agricultural implements, carts, &c. ♃oil, honey, silk, fruit, men's clothes, merchandize, horses, &c. ♂ arms, pepper, brass, red clothes, red wine, and red things; generally sharp-pointed, cutting, and hot things, horses for war, &c., and all warlike engines or instruments. ☉gold, brass, yellow clothes, diamonds, and things of value. ♀ women's dresses, or ornaments, such as rings, ear-rings, &c., white cloth, and white wine. ☿shews money, paper, books, pictures, and party-coloured dresses, &c., and scientific instruments, writing-desks, &c. The ☽all common commodities, such as crockery, &c. cattle, poultry, and also silver.

Whether the Goods shall be recovered or not.

The ☽in the 7th, aspecting the lord of the 7th with a △; a fortune strong in the ascendant; ♃in the 2d direct; in ☽the 10th in a △ to a planet in the 2d; ☽in the 2d in △ to the lord of the 2d; ☉and ☽going to △, or ☉and ☽aspecting the cusp of the 2d with a △; or the lord of the 2d in the ascendant or 4th, well aspected by application; ☽in the 2d, going to □of ☉in the 12th, in signs of short ascension: *all these are signs of its recovery*.

Also, if the lords of the term and house of the ☽be both increasing in light and motion,[113] and free from affliction, it shall be recovered, and be uninjured.

Generally, if there be a diminution of their light and motion, the thing is already partly destroyed. If there be good aspects to the lords or cusps of the ascendant, or 2d, or to ⊕ or its lord, by planets in angles, it will soon be recovered.

The lord of the 8th in the ascendant, or with its lord, shews recovery; the lord of the 7th in the 8th, denies it: ♄, ♂, or ♌in the ascendant, or 2d, shew dividing and loss of the thing.

The lord of the 2d in the ascendant shews recovery; and the lord of the 1st in the 2d the same, after long search. If the 2d or its lord be afflicted, all the things lost shall not be recovered. If both luminaries be under the earth, it is a strong testimony against recovery.

If both ☉and ☽aspect the ascendant, the thing cannot be lost, but will shortly be discovered.

Of the Time of the Thing being recovered.

Observe the *application* of the planets that signify recovery, and determine the number of days, weeks, or months, as they may be in moveable, common, or fixed signs, in angles, succeedents, or cadents. And if the signifiers are swift in motion, it hastens the recovery; if slow, it retards.

Of the Thief's Person.

In addition to the planet's general description in the sign he is in, observe the aspects he has, and take all these into consideration. Moreover, if the significator be oriental, and in ♌, ♍, or ♐, the person is *large*; if occidental, and in ♋, ♏, or ♓, the body is *smaller*. If the planet have *south* latitude, he is nimble; if in *north* latitude, slow in his motions. If going out of one sign into another, he is weak and feeble.[114]

Signs of the Thief being taken.

If the lord of the 7th (or thief's significator) be in the 1st or 7th, in ♂with the lord of the ascendant, or a retrograde planet. If the ☽separate from the thief's significator, and

apply to ♂of the lord of the 1st; or go from ♂of the lord of the 1st to him. Or if ☉and ☽be in ♂with him; or if he be going to combustion, or be in ♂with an infortune in the 7th. He is captured if ☽be in the 7th, applying to ☐of ♂, the ☉, or ☿; ☽separating from ☐of ♄or ☿, and applying to ☐of ☉, or separating from ♂♄, and going to ☐☿; or in the 8th, in ♌♂ or in the 7th, going to the lord of the 8th.

The Thief escapes.

If his significator be in aspect with a fortune; if he be in aspect to ♃or ♁, they being in the 11th, he escapes by friends; if in the 3d, by strangers, or by law quibbles, &c.

OF BATTLE, WAR, DUELS, PRIZE FIGHTS, OR OTHER CONTENTIONS.

The lord of the ascendant, planets therein, and ☽, are for the querent or challenger, or him who attacks; the 7th house, its lord and planets therein, for the adversary. Behold whose significators are most angular, best dignified and aspected, and expect victory for that party. If evil planets be in the ascendant, and fortunes in the 7th, the adversary shall overcome, and *vice versâ* also the lord of the 7th, in the ascendant, betokens victory to the querent, and *vice versâ*.

Whether any one shall return safe from War, or any dangerous Voyage, &c.

The lord of the ascendant, strong, well aspected, and his dispositor a good planet; good planets in the ascendant, or aspecting its cusp, are all good testimonies; and the reverse are evil. If the lord of the 7th, and the 7th house, be fortunate, (though the first be not,) the party returns, though not without great crosses and hinderances; *et e contra*. Observe how ☽is disposed; for her application to the good planets is fortunate; *and the contrary*. Evil planets in the 8th are signs of fear and death; ♄shews bruises and hurts by falls, &c., and losses; ♂ denotes wounds by weapons; ♇, injuries and disgrace.

If an evil planet be with the lord of the ascendant, and a good one in the ascendant, he will suffer great loss or be sorely wounded, but not die.

♄in the 1st, or with its lord, shews loss to the querent by one whom he will meet; ♄in the 1st, and an evil planet with its lord, he shall be wounded by wood or stone; ♂ shews wounds by fire or iron, and if ♇be in the ascendant, and ♄afflict its lord, he shall receive a wound, and be nearly killed. It is evil if ☉be with the lord of the 7th, or be in the 8th.

The lord of the ascendant in the 8th, or with its lord, or the lord of the 8th in the ascendant, denotes the querent's death. And the lord of the 7th in the second, or with its lord, shews the death of the adversary.

If the lord of the 7th be strong, and have good aspects from the 10th, or its lord, the querent will gain honour. And if the cusp of the 2d and its lord, and ⊕ or its lord, be fortunate, then he gains money by the war, &c.

In the same manner as the 8th house and its lord shew death, the 12th and its lord denote imprisonment.

And if the question concern the general result of a war or expedition, it must be judged on the same principles.

Of Partnership.

If good planets be in the 1st and 7th, the partnership shall be and do well. And if the lord of the 7th be strong, and in fixed signs, it shall endure. If the two lords agree in aspects, and by mutual reception, the partners will accord well together. But if they disagree, the fault will be with that party who has ♅, ♄, ♂, or ♇in their house.

zaid n. adwan

The significators of substance will shew the means of each party; and as they may be about to receive good or ill aspects, will they thrive or lose by the concern. The 8th, its lord, and planets there, are for the quesited's property.

If ☽separate from one fortune, and apply to the other, they will neither of them gain much by the concern. If she leave a good planet and apply to an ill, they begin well but end ill: and if she separate from one evil planet, and apply to another, they begin with complaining, continue with jealousy, and end with lawsuits. An evil planet, or ♋in the 2d, the querent gains but little, will be cheated, or get into debt: if they be in the 8th, judge this of the quesited. And if the lord of the 7th or 8th, □or ♂☉, the querent may hope but little gain from his partner, who will embezzle the common stock, &c.

Of removing from Place to Place.

The lord of the ascendant and planets therein stronger than the 7th, and planets there, it is better to remain. If there be a benefic in the 7th or ☊, and especially if ☽separate from an infortune, remove; an evil planet there, or the lord of the 1st or ☽leaving a benefic, remain.

The 8th house shews the property of the querent in he place he desires to remove to: if evil planets be there, it is better to remain. (*See also p*. 141)

O*f Lawsuits, and their Success*.

The lord of the ascendant or ☽joined to the lord of the 7th, or in ✶or △ with reception mutual, the parties will easily agree together, and make up the quarrel. But if one dispose of the other, and the reception be not mutual, they will agree without a lawsuit, but not without the interceding of friends. If they be in good aspect without, or in evil aspect with, reception, they will accord, after one effort at law. That party shall be most ready to agree whose significator is disposed of by the other. If they hasten to a mutual

good aspect, and the lord of the 9th or 10th interpose an evil aspect, they will be led to dispute by a lawyer or by the judge. If there be any translation of light by the ☽, or other planet, between the two significators, it denotes that they will be reconciled by a third person, described by that planet.

Observe whether the lord of the ascendant or 7th be strongest or most powerful, and best aspected; for that one shall gain the day. If they compound, the first motion thereto comes from the lighter planet, who is disposed of by the other. If the lord of the ascendant be in the 7th, the adversary will overcome, and *vice versâ*. If either lord of the 1st or 7th be retrograde, he shews that the party does not believe that he has right on his side; nor will he stand to it very stoutly.

If the lord of the 10th, which denotes the *judge*, be direct, he will proceed fairly, and endeavour to settle the cause speedily. But if he be retrograde, the judge will not act fairly according to law, nor strive to terminate the cause. If the lord of the 10th throw an evil aspect to either significator, the judge will be against that party.

If ☉or ☽be in the ascendant, or aspect its lord, or be in either of his houses, it is a good testimony for the querent; and if, on the contrary, the lord of the 7th be so situated, it is in favour of the quesited. If the lord of the 10th receive both significators, the judge will settle the matter before it comes to full trial.

If the lord of the 10th be in the 10th, in his own house, the judge will do justice, and decide the case with honour to himself, unless the lord of the 10th be ♄. If the lord of the 10th be only in his own term, or triplicity, the judge will determine the cause, but he is indifferent about it. If a planet having no dignities, or not in reception with the lord of the 10th, be in the 10th, the parties will not be satisfied with that judge or court. If ♄be judge, he will not decide aright; and if ♃, ♇, ☉, ☿, or ☽be in any aspect to him but ☌, there will be an ill report against him, of which he will clear himself; but if it be ☌, he will

have a hard report against him, which will long continue. And if ♂ ☍to ♄, the judge will be sorely defamed; and if also ☉□♄, he may be disgraced.

In deciding as to the result, observe well the lord of the 4th, and how he aspects the significators, or the lords of their substance; also the *application* of the ☽. If both significators aspect one planet, some person will intercede between them. If the ascendant and 7th be in fixed signs, both par-ties are resolutely bent on the suit; if common signs, they will continue it long also, and remove the cause out of one court into another; and if moveable signs, they are not very determined, and will soon bring it to an end.

That party who is weakest, and most afflicted by the infortunes, shall receive most prejudice by the contention.

Of making Purchases or Sales.

If ☽be joined with the lord of the 7th, the querent may make the purchase. The lighter planet of the two houses (1st and 7th) will be the occasion of the sale. Judge the nature of the commodity by the house by which it is governed; as the 4th for a house, the 12th for large cattle, the 9th for books, &c., the 10th for merchandize.

If infortunes be in the 7th, be cautious of the seller; he will try to trick the purchaser. The fourth house will shew the final result: but if ☽be void of course, there may be many meetings, &c., but scarcely any bargain concluded.

Whether a City, Town, Castle, &c. besieged, shall be taken or not.

The ascendant and its lord are for the querent and for the besiegers; the 4th signifies the place besieged or to be besieged, and the lord of the 4th the governor; the 5th and planets therein the ammunition, soldiers, &c. in the place.

Zaid n. adwan

If you find the lord of the first strong and fortunate, or joined to the lord of the 4th in the ascendant, or with the ☽or lord of the 10th, or any where but in the 6th, 8th, or 12th, and the lord of the 1st dispose of the lord of the 4th; or if ☽dispose him, and be not disposed of by him, it is an argument that the place shall be taken. Or if the lord of the 4th be in such houses as behold not the 4th, and be with infortunes, and weak, it will be taken, and the governor may be wounded. If infortunes be in the 4th, without some strong aspect of the fortunes, it will be taken. If ♋be in the 4th, it will be taken, and some parties will try to betray it, or some principal work or fort therein: the sign will shew which part of the town, &c. In this case the governor does not expect to preserve it.

If the lord of the 4th be in the 4th, strong and not afflicted. neither retrograde nor combust, nor besieged .of the infortunes, or if the lord of the 7th be there, *free from all impediments*, or if ♃, ☿, ☊or is be therein, and no reception between the lords of the 1st and 4th, then shall not the city, &c. be taken; and if there be both a fortune and infortune in the 4th, it shall not be taken, if the fortune be the nearest to the cusp, or first transit that degree; and this more certainly, if the lord of the ascendant be weak or unfortunate, especially if a light planet. But if the lord of the ascendant be strong, or fortune therein, and the ☽behold the cusp of the 4th, it shall be surprised or surrendered. An infortune in the 2d, or its lord, &c. afflicted, the querent lacks means to pursue the siege with vigour.

Of Commanders in Armies: and whether they shall be victorious or not.

If there be an infortune in the ascendant, it shews that the querent has no great justice on his part, or cause of quarrel. And if an infortune □the ascendant, the party shewn by it (viz. that for which the querent asks) will not manage their affairs well or discreetly. If a good planet be in the ascendant, or aspect it by ✶or △, it shews a good cause, and that it will be well managed.

An evil star in the 2d, and having no dignities therein, or aspecting its cusp by □aspect, denotes that either there will be no war, or that the querent will gain nothing by it; a benefit testifies the reverse. If ♃(or ♂ well dignified) be in the 3d, the querent's party will have good warlike stores, &c., and will consist of good, brave soldiers; but if ♂ be there, ill dignified, they will be bad characters, and ill disciplined.

If an infortune be in the 4th, the campaign will be held in a difficult country. If the sign describe a hilly country, it will offer obstacles by woods and bad roads; and if it shew a moist country, it will he unfit for military occupations, by reason of rivers, marshes, &c.; and so the army can do no good service.

If ♂ be in the 5th, well dignified, or a fortune aspect it, the army on the querent's side will be good soldiers, and well behaved; but ♄there, or ♁, denotes the contrary.

If a fortune or ☊be in the 6th, the ammunition train, artillery, &c. will be good; if ♂ be there, the horses will be fierce, wild and unbroken. If ♄be there (without dignities), they will be unserviceable, slow, and worn out.

A fortune in the 7th, the arms and instruments of war will be plentiful and serviceable. If an infortune be there, or afflicting it by evil aspect, they will be the reverse. In the former case, the enemy will be brave and no fool, and will fight fair; in the latter case, the enemy will fight rather by craft and treachery, than fair manhood.

A fortune in the 8th, shews that there will not be many men slain on the querent's side; nor any very important battle be fought. If ♄be there, there will be much plundering and destruction, and many prisoners be taken; also much death by sickness and want, &c. If ♂ be there, then expect much bloodshed.

A fortune in or aspecting the 9th, the enemy is well situated, and will strive to gain by false reports, alarms, &c.; he is politic. If an infortune, he will wear himself out by

marching, and will be often deceived by false intelligence; and if a fortune be in the 3d at the same time, the querent's side will gain by this conduct of the enemy.

A fortune in the 10th, or aspecting its cusp by ✶or △, shews that the commanding officer is expert and capable. But if ♄, ♉, or ♂, (unfortunate), be there, or afflict the 10th house by □, the commander on the querent's side will be extremely incapable and unworthy, and meet only disgrace.

A fortune or ☊in the 11th, shews the officers are clever, and understand their duty, and will well support the commander; but an infortune, or ♉, the reverse.

If a fortune (or ♂ well dignified) be in the 12th, it denotes that the enemy is well prepared, and will defend themselves well. An infortune there, shews that they are weak and will disagree among themselves, and fear their own forces. If ♉be in the 12th, the querent may expect treachery; and if the lord of the 12th be there, and have any dignities in the ascendant, the querent's side will suffer by desertion.

Whether the two Armies will Fight or not.

Observe the ascendant and its lord, the ☽and lord of the 7th, if they be ☿in any angle they will fight. If the lords of the 1st and 7th be not in ☿, but are in □or ☍from angles, they will engage; or if there be any planet which transfers the light of one to the other by □or ☍, there will be a fight, if there be no reception between them. But if there be none of these, and the heavier planet receive the lighter, there will be no serious engagement.

Whether the Querent have any Adversaries or open Enemies.

If the question regard not any relation, take the 7th house for any open enemy, if any person be specially considered; but if it he simply as to enemies in general, look to the 12th house. If it be as to some individual enemy, see whether the lord of the 7th, or

planet therein, throw a ☐or ☍to the lord of the ascendant, or ☽; this denotes that the quesited is envious or inimical. If the aspect apply, the enmity will increase; and if the enemy's significator dispose of the querent's without reception mutual, the querent will suffer by him: the manner how may be learned by the house he is in. If the aspect be past, the injury is done, and the enmity is dying away, unless the querent's significator, or ☽, be about to receive another ill aspect.

If the quesited's significator be placed in the 12th, or in any good aspect with any planet which is in ☐or ☍to the ☽, or lord of the ascendant, without reception, there is enmity to the querent.

If the question be general, the lord of the 12th and planets therein must be taken; and they shew private enemies to the querent, unless a benefic planet be in the 12th, and throw a ✶, or △, to the querent's significators. If there be many planets in the 7th, it shews many open enemies; and if in the 12th, many secret foes. The ☐shews envy and malice, which may be reconciled; the ☍, if without reception, denotes irreconcilable enemies. If an evil planet in the 12th throw a good aspect to the querent's significator, it chews that there is some person who under pretence of friendship wished to injure the querent. The same if the lord of the 11th be in the 12th. The house the lord of the 12th is in, will describe what person will injure the querent.

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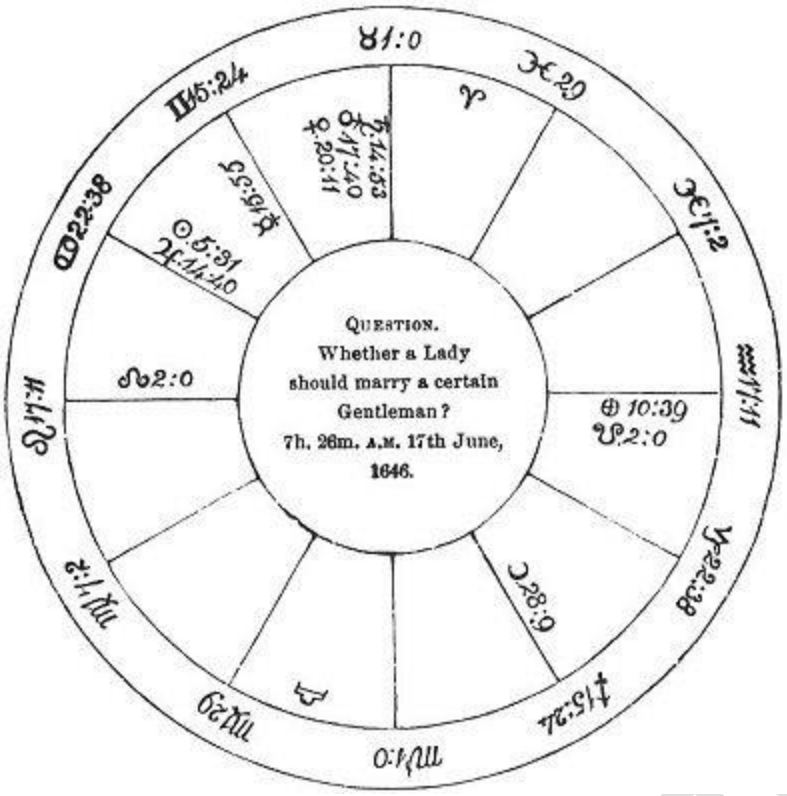

***Fig*. 14.**

JUDGMENT ON THE FIGURE ABOVE.

State of the Querent's case.--A gentleman had been a long time an earnest suitor unto her for marriage; but she had continually slighted, and at last had given him a positive denial; after which she sorely repented her conduct, and wished she had her former opportunity. She was in this state when she propounded her question to me.

The ascendant and ☉are for the querent; ♄, lord of the 7th, and ☽, are for the gentleman. The querent was moderately tall, of round face, sanguine complexion, grey eyes, light brown hair, occasioned by ☉, lord of the ascendant, being in the terms of ♂, and she was of cheerful modest countenance, comely, and well spoken.

Finding ♄, in the south angle, in ☌with ♂ in ♉, fixed, earthy sign, I judged the quesited to be of middle stature, not tall, nor handsome; a long face, not well composed; a wan, pale complexion; hair dark, or of a sad chesnut colour, curling and crisp; his eyes fixed, always down-looking, musing, stooping forward with his head, some impediment in his walking, as treading awry, &c. (*All this was confessed*.)

Finding ♄so elevated, and in ☌☍, I judged that he was gloomy and angry, discontented, scorning his former slights, (as all saturnine people do); and I judged him much incensed by a relation, a gentleman of respectability, shewn by ♂, lord of *his* 3d and 10th, and that this gentleman and he lived either in one house, or near each other; this being shewn by the significator's being in his 4th angle and fixed; (*and so it was*.)

I said the gentleman had no inclination for her, as the ☽was void of course, and applied to ☍of ☉, lord of the ascendant, which shewed that she herself was her own enemy. She then confessed the truth, and implored my advice how, consistent with honour, she might, if possible, bring it on again; and she appearing in great distress, I began to consider what hopes she had in the figure. I found ☉applying to ✶of ♄; this argued her desire and affection towards the quesited: but as there was no reception it gave little hopes. Finding reception between ♃and ☽, and ☉and ☽, and also that ☽disposed of ♄in her exaltation, and ♃in her house, and that ♃was very near a ✶of ♄, *applying*, and not separating; and also that ♃was in his exaltation, he being s fortune, and ever assisting nature and the afflicted, and that he was able to take off the malice of ♄; I was confident, from the exactness of the aspect, that the quesited was intimately acquainted with a person of rank and worth, (such as ♃represented), whom I exactly described, and the lady very well knew. I directed her to apply to him, and acquaint him with the full extent of her folly, and I assured her that in him she would find all honour and secrecy; and I doubted not but, by God's blessing, he would again revive the business, and bring her to her heart's content. But finding that ☉and ♄came to ✶aspect on the 27th of the

month, I advised to hasten all before that aspect was over; and as on the 19th of June ♄and ♃came to a ✶, I told her that the gentleman should first move the quesited on that day near noon. My counsel was followed, and by that gentleman's means the match was brought on again, and completed within twenty days, to the content of the sorrowful (but to me unthankful) lady, &c.

I acquainted this lady, that shortly before her lover had been offered a match, and that the lady was well descended, of good fortune, and described by ☿; but that she need not fear his marrying her, as some officer or gentleman, who had been in the army, shewn by ♂, would prevent that. She well knew both the parties, and confessed that such a mattes had been.

Had the query been, *who should live longest*? I should have judged the female, because ☉is going to ☌♃, and ♂ afflicts ♄.

If, whether the quesited were rich? I should say he had a good estate, as ♃, lord of his 2d, was direct, swift, and in his exaltation, &c.

If, would they agree? I should say they would, as ☉and ♄are applying to ✶; yet ♄with ♂ shews a man who looks to have authority, one choleric as well as melancholy, jealous without a cause, &c.; yet the ✶of ♃mitigates his ill manners by means of education.

If, will the querent be honest? I answer, her significator ☉is no way afflicted by ♂; her ascendant is *fixed*, and there is reception between ♃and ☽, which are arguments of a virtuous woman.[115]

In this manner you may examine any figure for discovery of what is necessary, &c.

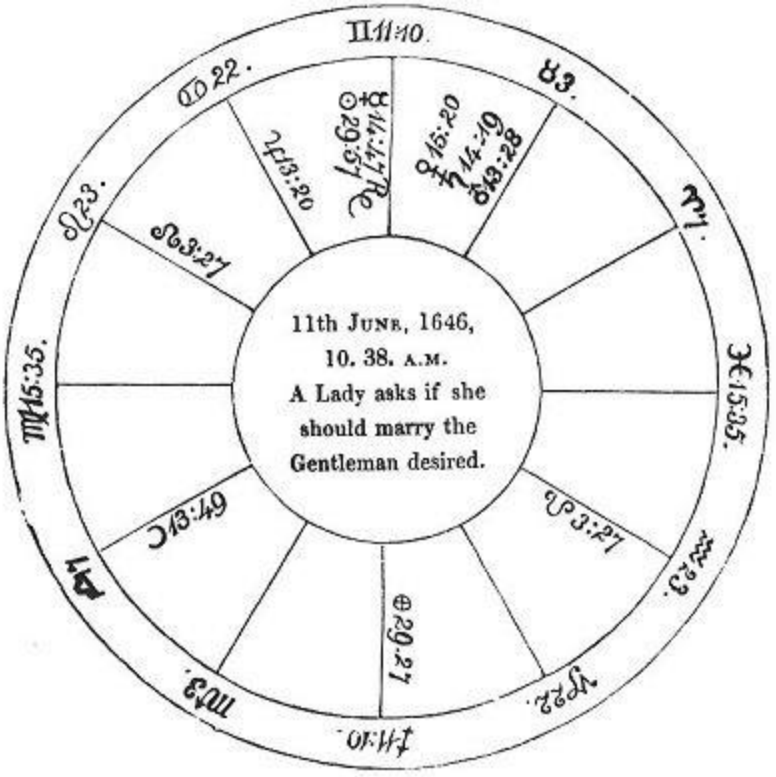

***Fig*. 15**

JUDGMENT ON THE ABOVE QUESTION.

The querent was of tall stature, ruddy complexion, sober, discreet, and well spoken, &c. The quesited was very tall, slender, lean, and of a long visage, with black hair. His tallness I attribute to ♃being in the terms of ☿, and the cusp of the 7th being also in his terms. Indeed, a significator being in the terms of any planet, does vary the party from his natural constitution; so that he will retain a tincture from that planet, according as he is dignified.[116] The darkness of his hair I attribute to the aspect of ♄to ♃, and ☽being in the term of ♃.

☿is here the querent's significator, and being retrograde, and under the beams of ☉, shewed that she was in distress and fear that the quesited would not have her. And she had some reason for it; for ♃was in his exaltation, and near the ✶of ♌, an argument

that the man stood upon high terms, and had been tampering with another: yet, as both significators were in *semi-sextile* aspect, and in good houses, I gathered hope that there were some mutual sparks of love. And when I found ☽separating from □of ♄and hastening to △ of ☿, thus conveying the light of the quesited's significator to the lord of the ascendant, which he received willingly by his retrograde movement, I was confident that the match would be suddenly brought about by a person described by ☽; who did, indeed, though with a little difficulty, produce the marriage to the content of both parties.

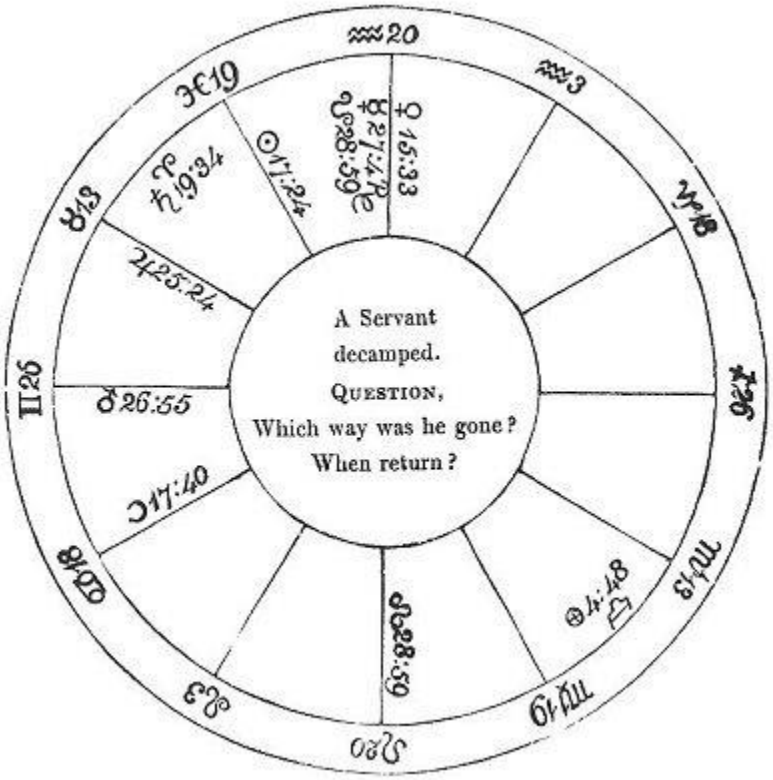

***Fig*. 16.**

JUDGMENT UPON THE ABOVE FIGURE.

The ascendant, ☿in ♒, and ♂ in ♊, taken together, signified and described the querent, (the servant's master). He was short of stature, corpulent, of good complexion,

and ruddy, fresh colour. His fatness I attribute to the north latitude of ☿, which was one degree; also the ascendant was in the terms of ♂, and face of ☉, who was in partile △ to ☽in a moist sign, which shews a full body, and phlegmatic.

The servant was shewn by ♂ (lord of the 6th) and ♏. He was a well-set short fellow, large joints, broad and full face, dark brown hair, his teeth irregular, complexion obscure and sunburnt, yet his skin clear; his age about nineteen.

I observed that he went away from his master the preceding Sunday, when ☽was in ♊, a western sign, where ♂ now was; and that ☿, the common significator of servants, was in ♒, a western sign, but south quarter of heaven.

I judged, therefore, that he went westward at first, and that at the time of the question he was west from the querent's house; and this I judged, because ♂ was angular, otherwise I should have judged by ☽. As ♂ and ☿, lord of the ascendant, were hastening to a △ out of angles, I judged that in a day or two he should have his servant again.

Upon the Friday following he came home, and said he had been at Kingston upon Thames; which, if true, he was nearly west, but a little south; and near a great water, (viz. the Thames), as the ☽in ♋might signify.

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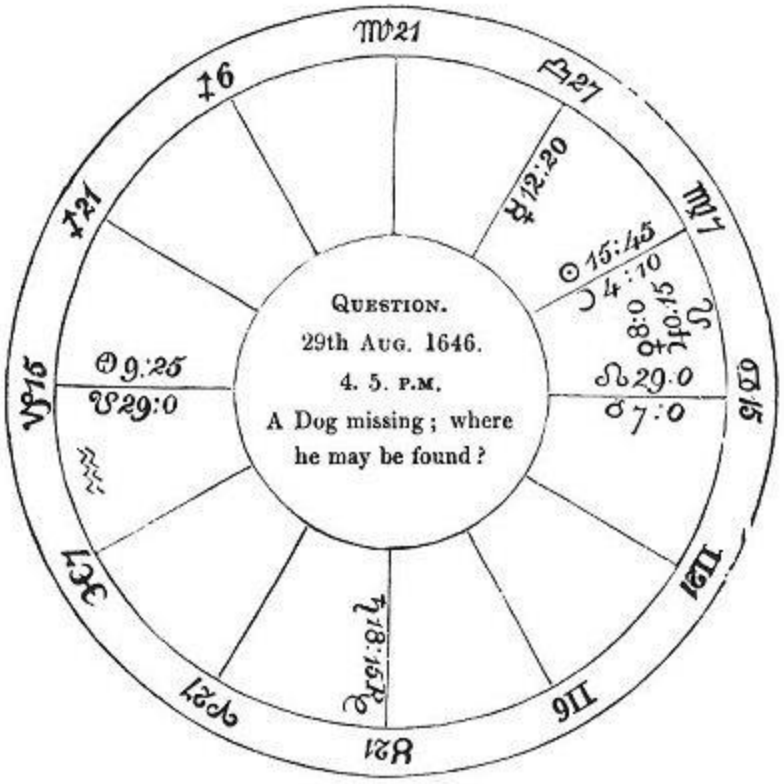

***Fig*. 17.**

JUDGMENT UPON THE ABOVE FIGURE.

The queries to me were, *What part of the city they should search*? and, *should he be found*?

The querent was described by the sign ascending, and *Cauda* (♋) therein; and, indeed, he was *saturnine*, and vitiated both in body and mind; that is, he was a little deformed in body, of small stature, and extremely covetous in disposition, &c. The sign of the 6th signifies a dog, as it would have done a sheep, hog, &c., or any small cattle.

The sign ♊ is west and by south, the quarter of heaven westerly; ☿, the dog's significator, is in ♎, a western sign, and is in a south-western quarter of heaven; the ☽ is in ♍, a south-west sign, verging to the west angle. The plurality of testimonies shewed that the dog ought to be *west* from where the owner lived, which was at Temple-bar;

therefore I judged that the dog was about Long Acre, or upper part of Drury Lane. As ☿was in a sign of the same triplicity with ♊, which signifies London, and applied to △ of the cusp of the 6th, I judged that the dog was not out of the lines of communication, but in the same quarter; of which I was more satisfied by the △ of ☉to sa. ☿being in an airy sign, I said the dog was in some garret or upper room; and, as ☽was under the beams of ☉, and ☿, ☽, and ☉were in the 8th house, that he was kept privately, or in great secrecy. But as ☉, on the following Monday, formed a △ to ♂, lord of the ascendant, and ☽formed a △ to ♂, who has dignities in the ascendant, I intimated that he should then have news of his dog; and this proved true; for a gentleman of the querent's acquaintance, coming accidentally to see a friend in Long Acre, found the dog chained up under a table, and knowing him to belong to the querent, sent him home about ten o'clock on the Monday morning, to my very great credit.

Usually I find that all fugitives go by the ☽; and as she varies her sign, they waver and shift their flight, declining more to east, west, north, or south. But you must judge by the significator or the ☽, according to which is strongest; or if both be equally strong, take that which best describes the fugitive, with regard also to that one which is nearest in aspect to the cusp of the house from whence signification is taken. That is, if the fugitive be a servant or small animal, the 6th; if a large animal, the 12th; if a son or daughter, the 5th; and if a wife, the 7th, &c.

Zain Adwan

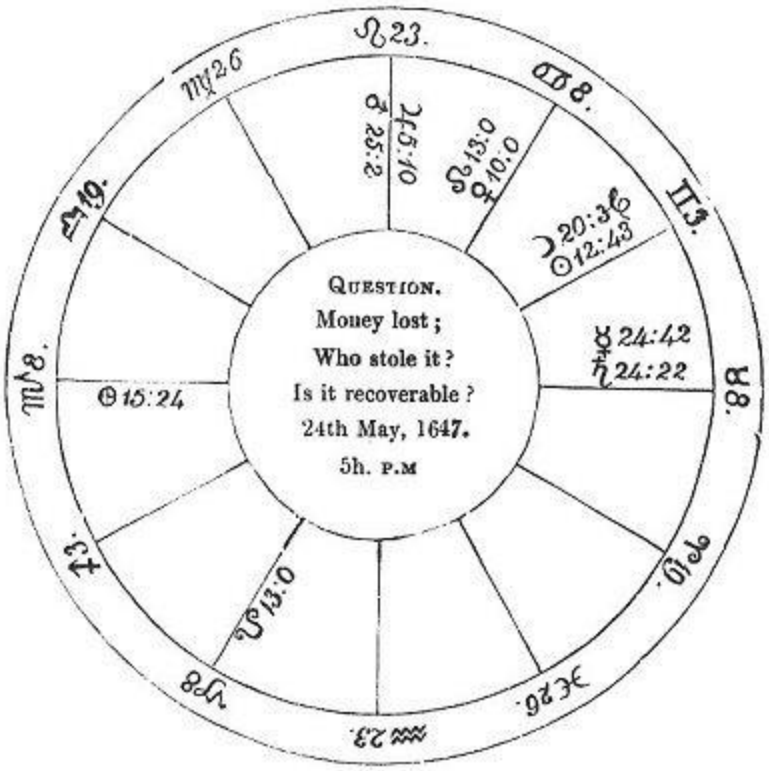

***Fig*. 18.**

JUDGMENT ON THE ABOVE FIGURE.

Here ♏ ascends, and partly describes the querent's person; ♂, his mind and disposition; ♂ in ☐ to ☿ and ♄, shewed him ill-conditioned, arrogant, proud, wasteful, &c. As ♂ is in 25° 2′ of ♌, he has entered his own *terms*, and is in his own *face*, I therefore refused him for the thief's significator. In the next place, ♄, though in the west angle, (the house of theft), is in his own *term* and *face*; I also passed him by. But finding ☿ in an angle, having no essential dignity, and in partile ☌ of ♄, and ☐ of ♂, I took him to signify the thief. But whether he described a malt or female was the question. The angles are part masculine, part feminine; no certain judgment could, therefore, be formed from thence. The ☽ was in a masculine sign, applying to a masculine planet, (♂), and ☿ was in ☌ with ♄, and ☐ to ♂, both masculine planets; I judged, therefore, that the sex was male.

As ☿ever signifies youth, and as ☽was so near the ☉, separating, I said he was a youth, of some 15 or 16. I described him of reasonable stature, thin visaged, hanging eye-brows, with some scar or blemish in his face, because ♂ casts his □to ☿; bad eyesight, as ☿is with evil fixed stars, (*the Pleiades*,) of the nature of ♂ and ☽; dark hair, because of his closeness to ♄; a scurvy countenance, and one formerly accused of theft and knavery.

The youth's significator being in ☌with ♄, lord of the 3d and 4th houses, I judged him the child of some neighbour; and as ☽is in ♊, and ☽is in ♊, and ☿in ♉in the 7th, I said he dwelt either opposite to the querent, or a little south-west. The ⊕ being in the ascendant, and disposed of by ♂, lord of the ascendant in the 10th, and as ☽applied to his ✶, and was within about four degrees of the aspect, I judged he should not only hear of, but have his money again within four days. He believed not one word I said, but would need persuade me that a woman servant, shewn by ♂, was one thief, and ♄another; but I stood firm to the art, and would not consent to this, as both ♄and ♂ were essentially dignified. The event proved me right, both as to the person and the return of the money, which was within three days after.

zaid n. adwan

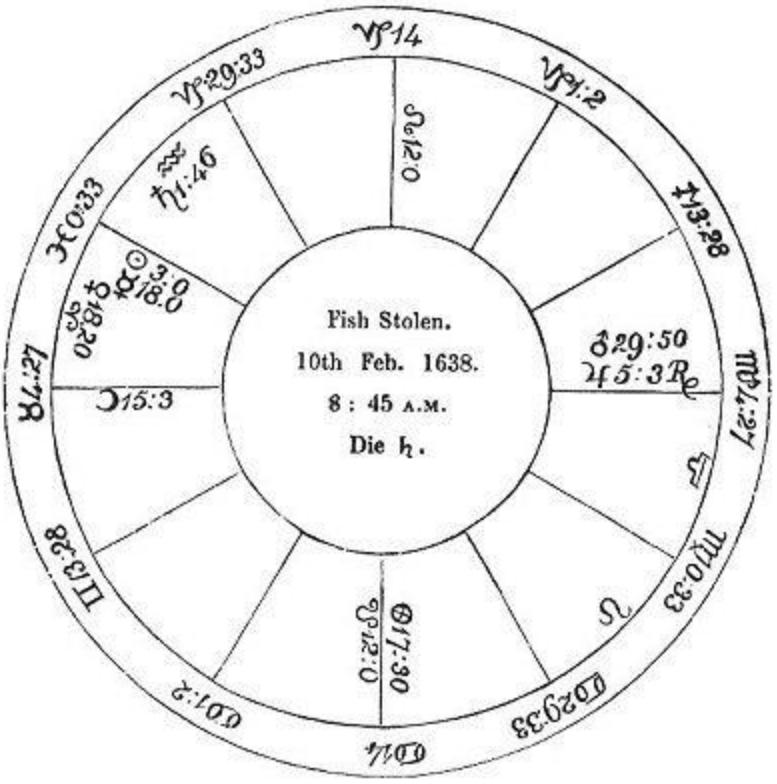

***Fig*. 19**

EXPLANATION OF THE ABOVE FIGURE.

Living in the country in 1637, I had bought at London some fish for my provision in Lent; it came down by the barge to Walton. On Saturday, the 10th February, one of the watermen, instead of bringing my fish home, acquainted me that their warehouse was robbed last night, and my fish stolen. I took the exact time I first heard the report, and erected this figure accordingly; endeavouring to give myself satisfaction as to what became of my goods, and, if possible, to recover part or all of them.

Judgment.

I first observed that there was no peregrine planet in an angle but ♃, whom I found on the cusp of the 7th house. I considered the signification of ♃in ♏a moist sign, and the significator of my goods, ☿in ♓, a moist sign; and that ⊕ was in ♋, a moist sign.

Discretion, together with art, led me to think he who had my goods must be a person whose profession, or calling, was to live upon the water; and that they were in some low room, in a moist place, because ⊕ was in ♋, and ☽was in ♉, an earthy sign, and under the earth.

I was confident I should hear of my goods again, as ☿, lord of the 2d, was applied to by ✶of ☽, who was lady of ⊕, and yet without hope of recovering them, as ☿was in his fall, and detriment; but as he was in his own terms. and had a △ to ⊕, there were hopes of regaining some of my goods.

There being no waterman in Walton described by ♃in ♏, I examined what fisherman there was of that complexion and as ♂, lord of the 7th, was leaving ♏, his own sign, and entering another, I inquired if any fisherman of the nature of ♂ and ♃had lately sold any land, or was leaving his own house and going to another; such a one I discovered, who lived near the Thames side, a mere fisherman, but a jovial fellow, though much suspected of thievery. He was of good stature, thick, and full-bodied, fair complexion, and red or yellowish hair.

I procured a warrant from a justice of peace, and reserved it privately until Sunday, the 18th of the month; and then, with a constable and the bargeman, I searched only that one house of the suspected fisherman. I found part of my fish in water, part eaten, part not consumed; all confessed. I asked the woman for seven *Portugal onions* which I had lost also; but she, not knowing what they were, had made pottage with them. I freely remitted the remainder of my fish, though the hireling priest of Walton affirmed that I had satisfaction for it. Bat he never hurt himself with a lie.

Thus you see, that the peregrine planet in an angle describes the thief; and that either ☉or ☽in the ascendant gives assured hopes of discovering who it was. The ☽applying to the lord of the 2d, argues recovery; if they both be essentially dignified, *complete*; but if

accidentally fortified, *partial*. If both be peregrine, and they apply, there will be a discovery, but no recovery.

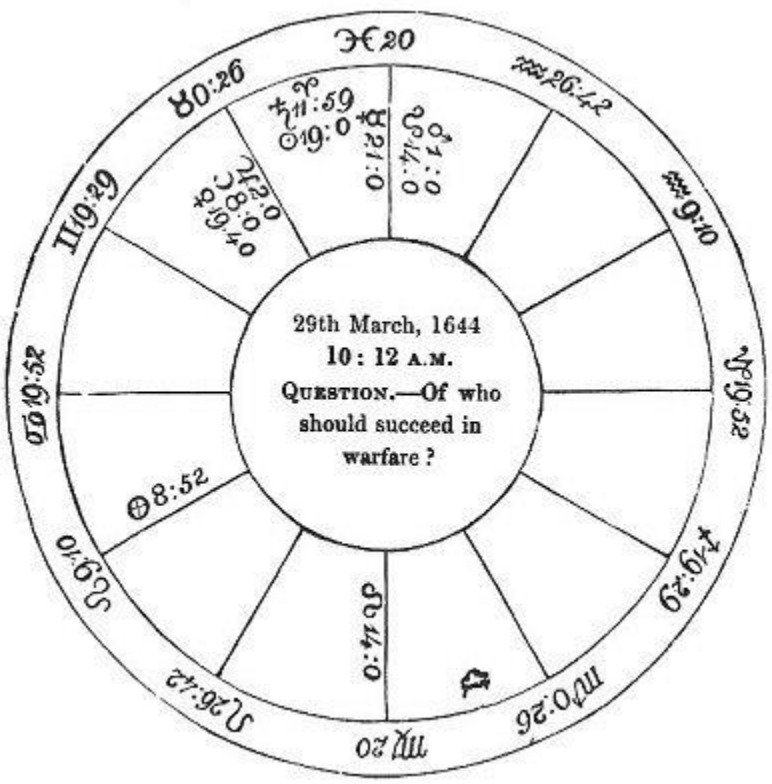

Fig. 20

A Figure erected to know whether Sir WILLIAM WALLER *or Sir* RALPH HOPTON *should overcome; they being supposed to be engaged near Alsford ⚲ 29th March, 1644.*

JUDGMENT ON THE ABOVE FIGURE.

The ascendant is for our army, the ☽, ♃, and ⚲, for our generals, viz. Sir William Waller, and Major-General Browne, a valiant and prudent citizen of London, who may justly claim a large share of honour in that day's service. Sir Ralph Hopton is signified by ♄, lord of the 7th; his army by ♑ in the descending part of heaven which is usually given to the friends and assistants of the enemy. There are only ♂ and ♋ in the 9th; so it appears that Sir Ralph had no supplies ready to attend that day's success, &c. From the

☽, having principal signification of us and our army, being in her exaltation with ♃, I concluded all was and would be well on our side, and that the victory would be ours. From her separation from ♃, I said, I verily conceived that we had already taken some ammunition from them, or performed some service against them. This I was confirmed in by ☉, lord of our substance and assistants, being posited in the 10th house, in the very degree of his exaltation; (the 19th). And though I thought by the proximity of ♄to ☉we should not gain the whole, or have a perfect victory, without diminution of some part of it; yet I was confident we should obtain a considerable proportion of their ammunition, and have a victory, the only thing inquired after; for the ☽applied to ♇, and then to a ✶of ☿, he being angular. I told the *querent* that within eleven or twelve hours after the question we should have perfect news, and it satisfactory. For, considering that the fight was within fifty miles of London, I ordered my time with discretion, not allowing days for the time, but *hours*; and this because ☽is distant from ♇ 11°, but is withal swift in motion, and increasing in light. These were also signs of our success, and the enemies' defeat. It appeared, by a letter from the army on that same Friday, that our generals took on the previous day 120 commanders and gentlemen, 560 common soldiers, and much ammunition. Thus the enemy was worsted, as appeared by ♄, (the Lord Hopton's significator), being *sub radiis*, in his fall in no aspect to any planet, wholly peregrine, and unfortunate, and aspecting the cusp of the 7th by □. All this argued that he would bring loss to his army, and dishonour to himself by the fight, &c.

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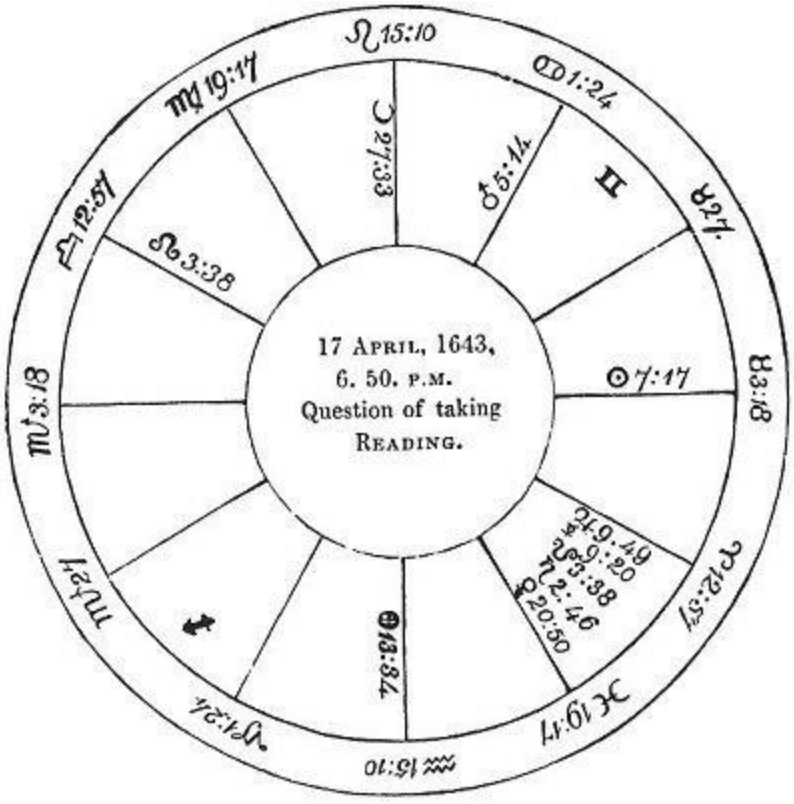

***Fig*. 21**

QUESTION.--*Whether his Excellency* ROBERT *Earl of* ESSEX *should take* READING*, having then surrounded it with his Army*?

JUDGMENT ON THE ABOVE FIGURE.

The General Essex is here shewn by ♂, lord of ♏, and his Majesty by ☉, lord of the 10th, the forces that were to relieve Reading by ☿ in ♓, and ☉in ♉; also the town by ♒, the sign on the 4th; the governor, Sir Arthur Acton, (reputed an able soldier), by the lord of the 4th, ♄; and their ammunition and provision by ♃, lord of the 5th, and by ☿ located therein.

The significator of his Excellency ♂ is well fortified, and afflicted in no way but by being in his fall. This figure manifests that it is of great importance in questions of warfare to have ♂ friendly to the querent. The ☽separated from *nothing*, and was void of course;

and, indeed, there was little hope of its being gained in the time it was. She applied to ✶of ♂ from signs of long ascension, which was equivalent to a □; which argued that his Excellency would have much difficulty and some fighting ere he could get it. But as ♂ and ☽were in reception, viz. ♂ in her house, and she in his terms and face, and near *Cor*. ♌, and in the house of honour, I judged that his Excellency would obtain and take Reading, and gain honour thereby. Finding ☉, his Majesty's significator, in the 7th in a fixed sign, I said that he would send forces to relieve the town, and oppose all he could; but that he would not prevail, as ♂ was better fortified than ☉. The King did come in person, and was beaten back at Causham Bridge.

Finding that ♒was not afflicted, I judged the town strong, and able to hold out; and ☠ being in the 5th, that they wanted not ammunition. Having well weighed all things, and that ♄, lord of the 4th, signifying the Governor, was in his fall with ♋, and that ☿and ☋were not far from ♋, I said, (and sent somebody word), that the most certain way, and which would assuredly occasion the surrender of the town, was to set division among the principal officers, and incense them against their chief officer, and that about eight days from the time of the question his Excellency would be master of the town; yet rather by composition than by blood. This because ☉and ♂ were separated from their ✶aspect, and ♂ was also separated from the □of ♄; as also because the ☽applied so directly to ✶of the lord of the ascendant, without any frustration, &c. The town was delivered for the Parliament's use on the 27th April, three days after the time I said; but it is observable that they began to treat on the very Monday before, just eight days after the figure was set.

The Governor was hurt in the head, as ♄in ♈with ♋shews; nor did they want provisions, &c., as ☠ in the 5th signifies.[117]

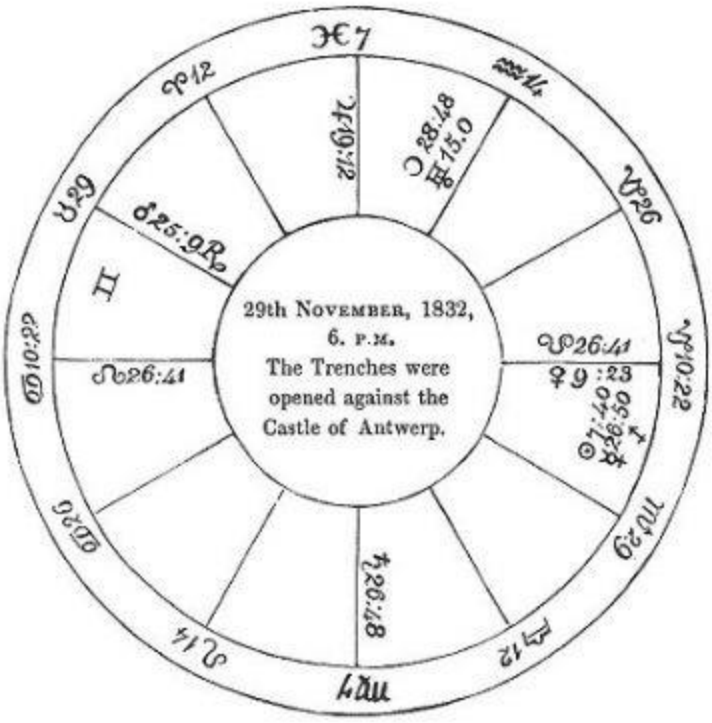

Fig. 22.

JUDGMENT ON THE PRECEDING FIGURE.

This figure is erected for the latitude and longitude of Antwerp, and is an exact representation of the heavens at the time the French troops opened ground, (or began the siege), before the citadel of Antwerp. By it the student will perceive that the rules laid down by our author, being founded in truth and nature, are infallible; and that they hold equally true in the 19th as they did in the 17th century. They must eventually put the sceptic to silence, and convince the world of the truth of planetary influence.

The ascendant and its lady, the ☽, are for the besiegers, the 7th and its lord for the besieged, the 4th is for the town, and its lord for the governor. The 10th is the house of honour for the besiegers, and we find ♃potent therein, denoting decidedly that they should gain honour by the siege. The ♉in the ascendant shewed success to the French, and ♌in the 7th the reverse to their enemies. The lord of the 4th, ☿, is in his detriment,

cadent, and in exact ☐to the evil ♄, denoting disgrace to the governor, who is thereby shewn to be extremely obstinate, as, indeed, he was. The malefic in the 4th denoted that the place should be taken, and, as ☽was in close ☐to ♂, it would be by much loss of men and bloodshed on the part of the besiegers. The ☽is in the *terms* of ♂, and he in her *exaltation* and *triplicity*, which reception denotes courageous conduct on the part of the besiegers; and although the ☽is in ☐to ♂, yet, there being mutual reception, it shews success in a martial exploit; but with much difficulty, because of the ☐aspect. The garrison were denoted by the 5th, and its ruler ♀; and as ♀ is in the 6th, (the 12th from the enemies' ascendant), it shewed that all the enemies' party would be made prisoners, which was the case.

The citadel capitulated when a breach had been effected; mad they surrendered to the French on the 23d December following; when the ☽, the besiegers' significator, crossed the cusp of the 7th house; thus entering the 7th just as the besiegers entered the place itself. It deserves notice that on the day ☿fell retrograde, and ☽crossed the cusp of the 5th (Dec. 15th), the besiegers carried the horn work.

The student will observe, that the lord of the 7th was peregrine, having no essential dignity whatever; and that the ☽, besides her aspect and her mutual reception with ♂, the chief significator of warfare, is in her own face, and disposes of ♄by triplicity. Hence the besiegers are decidedly the strongest party, and should, by the rules of the science, certainly prevail.

The student may rely that the figure of the heavens at the first moment of commencing any enterprise whatever, will infallibly point out, to those who really understand astrology, its final result.

zaid n. adwan

Chapter 31. Of The Eighth House, And Its Questions: These Are Death, Dowry, The Wife's Substance, etc

QUERY.--*Whether an absent Person be dead or alive*?

Take care to learn whether the *quesited* be any relation to the *querent*: if so, look to the house signifying that relation; and if not, look to the 7th for the quesited's significator. If the lord of the quesited's ascendant be in the 4th or the 8th, either from his own house or in the figure, it is one argument that the party is dead. If, also, his significator be in the 12th, or his own 12th in ☐or ♂to a malefic, or if ☽or ☉be unfortunate in like way, you have strong testimony that he is deceased.

If the significator of the absent be strong, and in a good house, and separated from a fortune, he is not dead. If he be afflicted, and was lately in ♂or ☐of an evil planet, I judge that he has been in trouble or misfortune, according to the nature of the house from whence afflicted; but not dead, unless the lord of the 8th afflict him also, and the lights be afflicted.

Of the Death of the Querent?

If any one ask concerning the probable length of his life, or when he may probably die, observe the ascendant, its lord, and ☽; also, the lord of the 8th, an unfortunate planet in the 8th, and that planet to whom the lord of the 1st or ☽be joined by ☌, ☐, or ♂; and you may determine the death of the querent, according to the number of degrees between the significator and the aspect of the afflicting planet. If the lord of the ascendant be in ☌with the lord of the 8th in an angle, it notes so many years; for in this question angles do not accelerate death, but show that life and nature are strong. If in a succeedent house, months; though if the sign be *fixed*, it gives half years, half months. In a cadent house, weeks. But you must always consider whether the significators are extremely

afflicted; if not, the querent may live longer, and only be *near* death at the time threatened. The lord of the ascendant is more to be considered in this case than the ☽; and, therefore, his ♂with the lord of the 8th or ☉is to be most feared.

Observe that the ☽being strong even, yet if the lord of the ascendant be afflicted extremely, she does not denote health or life, but only success in his affairs, &c. Aspects by separation are not to be considered, but only those by *application*.[118]

What manner of Death the Querent shall die?

This judgment is chiefly shewn by the lord of the 8th, if in the 8th, or any planet therein or nearest to its cusp, and having dignities in the 8th house; or from the planet which afflicts the lord of the ascendant, and has dignities in the 8th. If it be either ♃or ☠, or that they be in the 8th house, or aspect its cusp by ✶or △, they shew a natural death by such diseases as they shew in the sign they are in, and the part of man's body it governs. If evil planets be there, they shew violent deaths, or fevers, and long and painful illnesses; and if the figure be violent, it may be by accidents, &c. The ♁with the significator of death is very evil; and if it be ♄, (and ☠ assist by her □, &c.), it shews fear of poison. The lord of the 1st and 8th being the same planet, shews that the querent brings on his own death by imprudence, &c.

Whether the Wife's Fortune will be great, or easily obtained, or whether the Person inquired of be rich or not?

The cusp of the 8th, in terms of ♃or ☠, gives good hopes of wealth, or if ♃or ☠ be therein. If they be essentially strong, and free from combustion, &c., they denote much wealth; but though well dignified, if they be combust, slow, or retrograde, they shew trouble in procuring the fortune, &c. The lord of the 8th in the 8th, and strong, and no way afflicted, gives good hopes of some estate or legacy to fall to the quesited; this is more sure if either the lord of the 4th or 10th be in good aspect with the lord of the 8th

from angles. If ⊕ be in the 8th, and in ♌, or ♒, or any of the houses of ♃or ☊, or they in good aspect to ⊕, the quesited's fortune is good. The dispositor of ⊕ in good aspect to it, or ♃and ☊, shew the same thing. If all these happen, the quesited is very rich.

If ♄or ☊ be in the 8th and peregrine, the party is poor, or there will be contention about the property. The lord of the 8th combust, shews slow performance, and little ability of what is promised; and if ☋be in the 8th, and no planet there, fraud is intended, or more will be promised than can be performed.

The lord of the 8th in the 2d, or in ✶or △ to its lord, the querent shall have what is promised; in □, with difficulty; in ♂with much wrangling; if without reception, never. But weigh well what the particular figure promises besides these general rules.

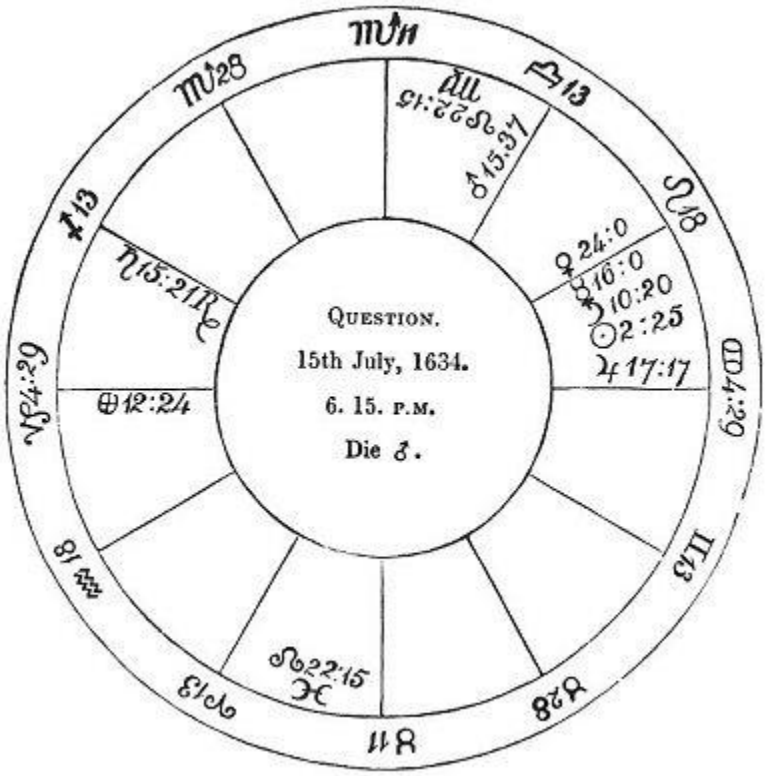

***Fig*. 23**

Whether the Querent shall suffer by a particular Thing of which he is in fear?

If you find the ☽ afflicted, or the lord of the ascendant unfortunate and falling from an angle, or especially if he be in the 12th, and the ☽ with him, there is ground for his fear; and he may expect to be accused, &c. of much of which he is not guilty. If the lord of the 1st ascends into the 11th or 10th, or be joined to a fortune, he shall not be injured. If he apply to infortunes, the thing threatened is true; but if to a fortune, and not at the same time to an infortune, it is false or ungrounded. The ☽ in △ to ☉ discovers all suddenly. The ☽ cadent, and applying to a cadent planet, the supposed danger will be nothing, or come to nothing in the end.

QUESTION.--SHALL THE QUERENT RECEIVE THE PORTION PROMISED?

Judgment.--The querent's significator retrograde in the 12th, shewed he had been in despair of it, which he confessed. The female is signified by ♃and ♀; ♃in his exaltation, and ☽in ♌, a fixed sign, argue that she thinks well of herself, is confident, &c., yet modest and virtuous. The ☽being near ☉, she had a scar near her right eye.

Finding ☉lord of the quesited's 2d in his own house, and ♀ in her 2d, and also that ☽separated from ☉, and transferring his light to ♄, lord of the ascendant and 2d and ⊕, I assured the querent that he had no cause to fear the nonpayment of his wife's portion; that all promised would be paid; and that, to his farther comfort, she would prove a chaste and virtuous woman, but somewhat proud. I have since heard, from his own mouth, that this judgment proved exactly true.

Chapter 32. Of The Ninth House And Its Questions. Long Journeys, Voyages, Arts, Science, Church Preferment, Law, etc

Of a Voyage, and its Issue.

If there be good planets in the 9th, or its cusp be well aspected, or the lord of the ascendant or 10th be there, and well affected, it is good. But if ♅, ♄, ♂, or ♇be there, It is always evil. If the lord of the 9th be with an evil planet, he shall not speed well. ♄shews losses and sickness; ♂ shews danger by thieves or pirates: and ♇much the same as ♂, but more of cozening and cheating. The house of substance from the 9th is the 10th. Fortunes there shew wealth; infortunes loss. If benefits be in the 9th, a good voyage; if malefics, many hardships, &c.

What Wind and Weather the Querent will experience.

The lord of the ascendant with good planets, and they strong and in friendly aspect, and the lords of the 1st and 9th in △ out of ♊, ♎, or ♒, shew fair weather and favourable winds. The significators in ♂, out of fixed signs, shew detention by foul winds; and if near violent fixed stars; storms and contrary winds will drive him back.

Of a long Journey, and its Issue.

If a fortune be in the ascendant, say he will have good success before he sets out, or in the commencement of his journey; if it be in the 10th, then he will have success on the journey; if in the 7th, at the place to which he goes; and if in the 4th, it will be on his return, and when he is come home. In this case ♃gives benefits by clerical persons, judges, magistrates, or gentlemen, according to the querent's situation in life and the house ♃rules, and the nature of the ruler of ♃. As if it be ☉, by a king, or nobleman, or person in power; if ♄, it will be by old people, or ancient matters, or farmers. &c. Let him apply to such a person in his affairs as ♄describes, according to the sign he is in and the aspects he receives. If it be ♀, it will be by women, pleasure, sport, &c.; or by dealing in linen, silks, jewels, spices, &c. If ☿, by writing or merchandize, letters of introduction, &c. If ☽, by some female, probably a widow, or by a sailor, or by carrying news, &c., or by play.

Of the Length of the Journey, &c.

The lord of the 9th, or planet therein, or ☽in moveable signs, swift and oriental, shew a short time absent. If they be in fixed signs, slow and occidental, it shews a long and tedious journey and absence. If they be in common signs, they shew change of mind, and a varying of his journey, going to other places, &c. According as the ☽is assisted or afflicted, judge results to happen. As, for example, if ☽be in the 6th, or in ♂to its lord, it shews sickness or impediments from servants. The lord of the 4th, and the 4th house, denote the final issue.

Of the Return, &c ., of a Person who is gone a long Journey

The lord of the ascendant in the ascendant or midheaven, or aspected by planets therein, shows that he is thinking of returning. But if he be in the 7th or 4th, his return is prolonged; and he is not thinking of leaving the place he went to. The lord of the ascendant in the 3d or 9th, applying to a planet in the ascendant, he is on his journey homeward. The same may be judged if he be in the 8th or 2d, and apply to a planet in the 10th; but in this case observe also the ☽, and whether she aspect the ascendant, or a planet therein. If the lord of the ascendant or ☽apply to a retrograde planet, or the lord of the ascendant be himself a retrograde, and behold the ascendant, he is coming; but if his significator be afflicted, it shews some hinderance which makes him tarry. The dispositor of the ☽afflicted, shews hinderance also.

If you find ☿or the ☽in the ascendant or midheaven, judge that letters or some news shall come shortly from the party; for ☿is the significator of letters, and the ☽of news. If they separate from a fortune, it denotes good news; and if from an infortune, the contrary.

The planet from whom the lord of the ascendant of the quesited is separated, is the significator of the state and condition in which he lately was; the planet to whom he

applies, of the state in which he now is; and the planet to whom he afterwards applies is the significator of him to whom he in tends to come.

If the quesited's significator be going out of one sign into another, judge that he went out of the place he was in, and entered another, or that he has undertaken another journey. Observe in which of those signs he was stronger, better aspected and received, &c.; and so judge of his corresponding condition.

Observe, that combustion in all questions of one absent, shews some great evil; such as imprisonment, &c.; and if it be in the house of death, or ☉be lord of the house of death, it generally denotes death.

Ever consider for whom the question is asked, and take his proper significator. The lord of the 7th for a husband (or for any one who is no relation), the lord of the 3d a brother, 5th a son, &c.; and note how the fortunes are placed; if strong in the figure, well aspecting the significator of the quesited, or in his house, judge health and prosperity; and the reverse by infortunes.

OF PROFIT BY, OR PROFICIENCY IN, ANY SCIENCE, &c.

The ascendant, its lord, and the ☽, are for the querent; and the 9th, its lord, or planet therein (if more than one, the nearest to the cusp), for the science.

See whether the lord of the 9th be fortunate or not, oriental, angular, &c.; and whether he behold the lord of the ascendant with ✶or △. If he be a fortune, and aspect the lord of the ascendant, the man has scientific knowledge, and will gain thereby; the more so if there be reception. If the aspect be □or ☍, the man has talent, but shall do no good by it. If an infortune aspect either the lord of the ascendant or 9th, the man has wearied himself, but to no purpose, for he will never attain the knowledge he desires. If infortunes be in the 9th, or its lord afflicted, the party has but little scientific knowledge.

The ☽must also be observed with the lord of the 9th; for if they both apply to fortunes, the man is scientific; if to infortunes, the contrary.

If the question be put regarding another person, you must in this case give the ascendant for the quesited.[119]

EXAMPLE.

The author having given no good example regarding this question, the reader is here presented with a figure, which will no doubt prove interesting.

The editor being in company with two other artists, a general desire was expressed to know the future destiny of astrology, and the following figure was erected.

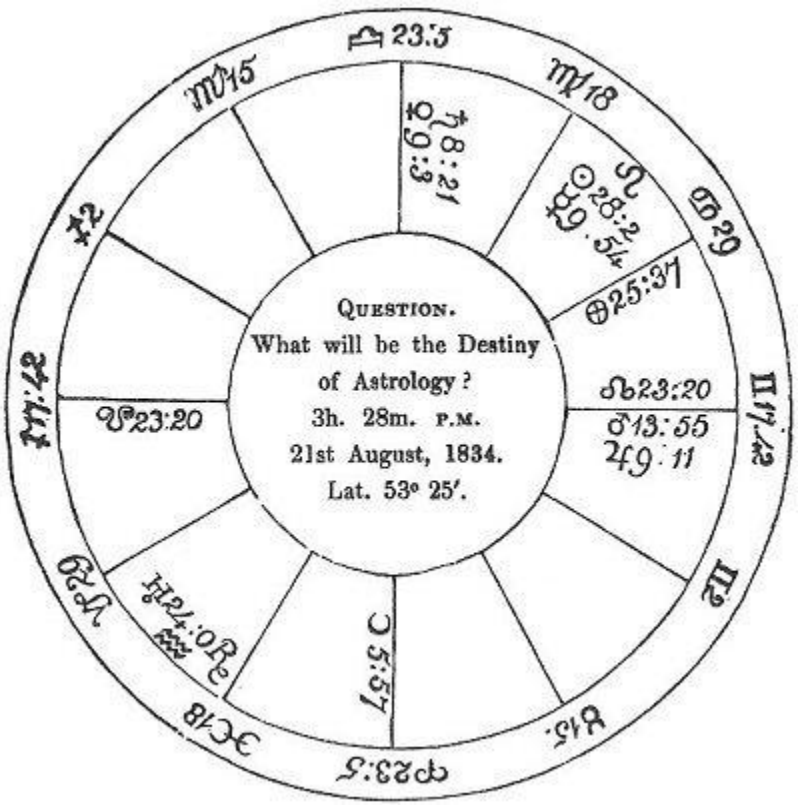

***Fig*. 24.**

JUDGMENT ON THE ABOVE FIGURE.

The first thing to be observed in this figure is that ☿, the natural significator of science, is lord of the 9th, and is, therefore, the significator of the science of astrology. He is found cadent, and almost peregrine, having no essential dignity but his term, by which may be seen the present enfeebled state of the science; but as ☿has passed through four degrees of his term in a *fixed* sign, this points out, that for four years it has been in some measure more in credit than previously. And this is the case, as it is about four years since the Editor's publications began to call attention to the science. And as ☿has just passed a ✶of ♃, who describes the person asking the question, it is shewn that the science has been much benefited by such a person, about nine months before, because ☿is past the ✶of ♃by 43′, which shews about nine months, taking a degree for a year. And the fact is, that the *Grammar of Astrology* was published about nine months before the time of the question.

The ♋in the ascendant shews the difficulties the Editor has had to encounter, and the contumely he has had to meet in bringing the science forward again.

The presence of ♃in the 9th, denotes the discredit in which the science is generally held; and being in ♂with 💀, it shews that injury has been done to it by elderly females, who pretend to practise divining, &c., but who are held in great contempt by the public, as may be seen by the ☽(the general significator of the public) being in ☍to both 💀 and ♄, from the house of enemies to the science.

The next aspect formed by ☿, is the ✶of ♂, who being lord of the 11th house of the figure, and placed on the cusp of the 11th from the ninth, denotes *friends*. This shews, that in about four years from the time of the question, the science will gain many friends among persons denoted by ♂ in ♊, such as writers of public spirit, booksellers, &c.; and there is no doubt that about that time it will suddenly and rapidly gain ground in public opinion. The next aspect formed by ☿, is the ☍of ♅, from which he is distant 14°; this may shew that some *sudden* mischief may be done to the interests of the science by

means of female agents, as ☿ is in exact sesquiquadrate aspect to ♅. But as ♅is retrograde, and not angular, this will not be very important. The ☉is in the 12th from the 9th, and denotes secret enmity to the science by men in power, the ☉being in ♌; and as he disposes of ☿, it shews that the hand of power at present keeps it down. As ☿is 18° from ☉, 1 judge that, about the year 1852, some important honour will be done to the science; probably by the present penal laws being repealed, which forbid the acceptance of any remuneration for practising it. As ☿has 20° to pass before he reaches his own dignities, and as ♄will then have entered ♊, and be disposed of by ☿, I judge that about 20 years hence the science will be publicly honoured; and as has afterwards 18° to pass in a common sign (signifying months), I conceive that about 18 months after that, when ☿crosses the cusp of the 9th house in this figure (about the year 1856), the science will rapidly rise in public estimation, and be publicly studied in colleges, &c.

The ☉enters ♍after two years, as he is two degrees off, which will cause the ruling powers to relax something of their severity against the science; and as he then has 18°, (equal to 18 months, being in a common sign,) to go before he passes the cusp, there will be some person of rank who will assist the science at that time; viz. three years and a half from the time of the question, or the year 1838.

The ☽must now be considered; she is hastening to ☍of two planets in the 9th, which shews that there is yet much opposition to be expected to the science by the public, and especially by rash and violent people, which ☽in the house of ♂ always denotes. But after the influence of the ☍of ♄and ☿ is passed away, the ☽meets nothing out favourable aspects. It is very remarkable that the ☽is aspected by every one of the planets before she passes through ♈. The first aspect she forms after ☍of ♄and ☿ is ✶of ♃, which denotes popularity for the works of the Editor, connected with the science. The next is △ of ☿, which shews an increase of students, and public discussion. The next is ✶of ♂, denoting increase of powerful friends, who will boldly advocate the cause of

the science. The ✶of ☿is of little import; but the △ of ☉being the last aspect she forms before leaving the sign, decidedly shews that at last the science will receive the highest patronage, and be publicly honoured; and as ☉is in ♌, a fixed sign, this will be permanent. Finally, the cusp of the 4th is in the term as well as house of ♂, and is ruled by ☉, by triplicity, and face; and ☉casts a △ thereto; ♂, lord of the 4th, is in ☌with ♃, in ✶to ☿and ☽, and △ to ♄and ♀; and he rules the ☽by house and face, and the ☉by face. All these are decided testimonies, that in the end the cause of truth shall triumph, and the reality and utility of the science be permanently established. ☿in a fixed sign, and so powerfully aspected by ♄, ♃, ♂, (lord of the 4th, the house denoting the end of the matter) ♀ and ☽, is another strong evidence that ASTROLOGY IS DESTINED TO FLOURISH WHILE THE WORLD ENDURES!

N.B. It is remarkable that ☿had just passed the ✶of ♀, lady of the 2d (or house of property), from the 9th, and lady also of the 10th in the figure, and 9th (house of law) from the 9th. This shewed the benefit resulting to astrology, by the repeal of the law which taxed Almanacs, and which greatly injured the science. It is also remarkable, that ♃was exactly passing over the 2d degree of ♊, the cusp of the 10th (house of honour) from the 9th, about the 7th February, 1835, when the last sheet of the former edition of this work went through the press; and at the same time ♄was in ♎23° 6′, having just quitted the 9th house, where he had injured the interests of the science.

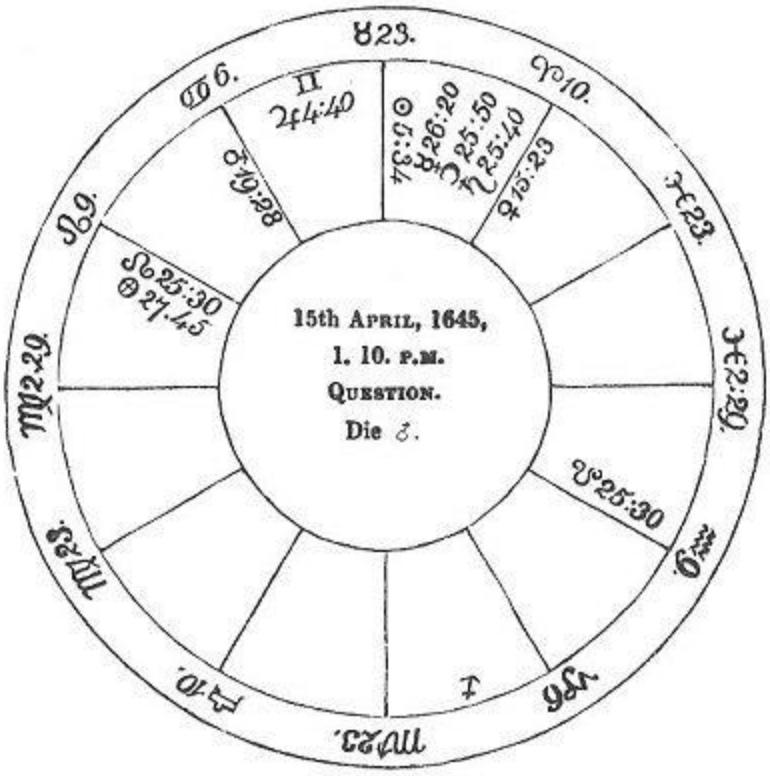

***Fig*. 25.**

A WOMAN ASKS OF HER HUSBAND, WHO IS AT SEA; IF ALIVE? WHEN RETURN?

Judgment.--The lord of the ascendant ☿, shews the querent. He being with ☽and ♄in ♈, which rules the face, she was extremely disfigured in the face by small pock, had weak eyes, &c., and was full of grief and sorrow for her husband, occasioned by ♄afflicting ☿. She had also a lisp, and spoke ill; for ♄in a bestial sign afflicting ☿, causes impediments in speech, especially if also ☽be afflicted.

♃signified the quesited, who being in the 10th, and lately separated from ✶of 💀, now in the 9th, and lady of the 3d, it shewed that he had been lately some voyage south-east. And as ♃was no way afflicted and swift in motion, as well as angular, I judged the man was alive and in health. But as ☿who disposes of ♃, is lord of his 8th (viz. the 2d house), and as ☽is so exceedingly afflicted by ☿and ♄, I said he had been in much danger and

peril of his life by treachery and plots of his adversaries; for ☿is lord of the 7th from his ascendant, and ♄of his 12th.

Moreover, ☌is accidentally but not essentially fortified, and is in his detriment, and near *Oculus* ♉, a violent fixed star; intimating that the man had endured many sudden and violent chances.

Finding ☌more fortified than ☽, she almost entering ♉, a southern sign, and ☌in ♊, a western sign, and south quarter, I judged that the quesited was in the south-west or England, in some harbour, as ☌was angular.

When She should hear of Him, or see Him?

The ☽separates from ♄, and applies to ☿, the querent's significator; shewing that after much expectation, &c., she should hear of him, and in about three days, as ☽is so near ☿, and in a moveable sign, (*and so she did*). But as ☿is in a moveable sign, and ☽afflicted by him and ♄, the news she heard was false, for she heard that he was in town; but it was not so. Considering that ☿and ☌hastened to a ♂in ♊, ☿being therein very potent, and that this was about the 5th May following, I judged that she would about that time have certain news of her husband, if he did not then come home. The second week in May she did hear from him, but he did not come home till July. He had been several voyages in the west, was taken prisoner by the king's forces, and, at the time of the question, was in Barnstaple.

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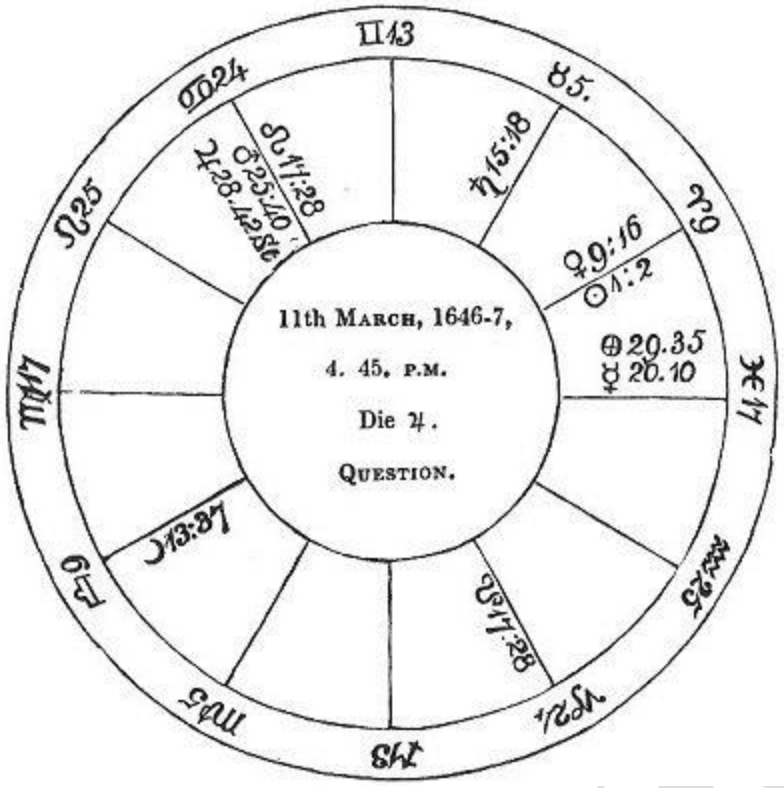

***Fig*. 26**

QUESTION: WHETHER PRESBYTERY SHALL STAND?

Judgment.--The angles of the figure are not fixed, but the cusp of the 9th, from which this judgment is to be deduced, is ♉, a fixed and stable sign; and we must also judge from ♄therein in the terms of ♃, who is the general significator of religious matters. ♃is now stationary, and is leaving his exaltation, and is impedited by ♂; after leaving ♋, he enters the fixed sign ♌, and is in the terms of ♄. We find ☿, who rules the 9th, in her detriment, and in the 12th house from her own, the 9th. She has twenty-one degrees to pass through in the 8th house before she get into her own sign ♉, and where she would be fixed. But before she reaches ♉, she meets the □of ♃, (shewing that the gentry of England will oppose it), and then of ♂, (lord of the ascendant of England, ♈), hence the whole commonalty of the kingdom will disapprove of it), and all three planets at the time of the aspect in the term of ♄.

There is not a single planet fixed, except ♄, nor essentially dignified, except ♃; the ☽entering *via combusta*, ♂ and ☿in their fall, ♀ in her detriment, and ♃impeded by ♂. The ☽separates from ♀ in the 8th, and then goes to □of ♂ and ♃. From these configurations we shall form our judgment, THAT POSTERITY MAY SEE THAT THERE IS SOME VERITY IN ASTROLOGY.

The position of ♄in the 9th, who is naturally of a severe, surly, rigid, and harsh temper, may argue that Presbytery will be too strict, sullen, and dogged for the English constitutions; little gentle or compliant with the nature of the community. And that there shall spring up among themselves many strange opinions and distractions even, concerning this very Presbytery; that they shall grow excessively covetous, contentious, and desirous of more than belongs to them; worldly, envious, and malicious one against the other; that among them some juniors, represented by ♀,[120] shall be light in judgment, wavering, and decline the strictness of their discipline; and that the elders, represented by ♄, shall not be respected on account of their excessive rigidness, nor shall their orthodox opinions be consented to.

Observe, that ♄is peregrine, and supported by no favourable aspect of either fortune; there is reception between ☽and him, but no aspect: ☿, lord of the 10th, signifying authority, is fast separating from ♄, as if the gentry or supreme of the kingdom do already decline from the severity of the austere Presbyterian clergy, fearing thraldom rather than freedom to ensue from their power.

Three whole years from hence shall not pass, ere authority itself, or some Divine Providence, will inform our judgment with a way in discipline or government either nearer to the former purity of the primitive times, or better beloved of the whole kingdom of England; or authority shall in this space of time moderate many things now strongly desired. For some time we shall not discover what shall be established, out all shall be even as when there was no king in Israel; a confusion among us shall yet awhile

remain. The soldiery then, or some men of fiery spirits, will arise, and keep back their contribution from the clergy, and will deny obedience or submission to this thing called Presbytery. It will then come to be handled by the magistracy, and the grand authority of the kingdom. Also, by the plurality of the clergy, or men of sound judgment, it will be contradicted, disputed against, disapproved; and these shall make it manifest that this very Presbytery, now maintained, is not the same that the commonwealth of England will entertain as a standing rule to live under.

From what I find by this figure, I conclude *that Presbytery shall not stand here in England*. [121]

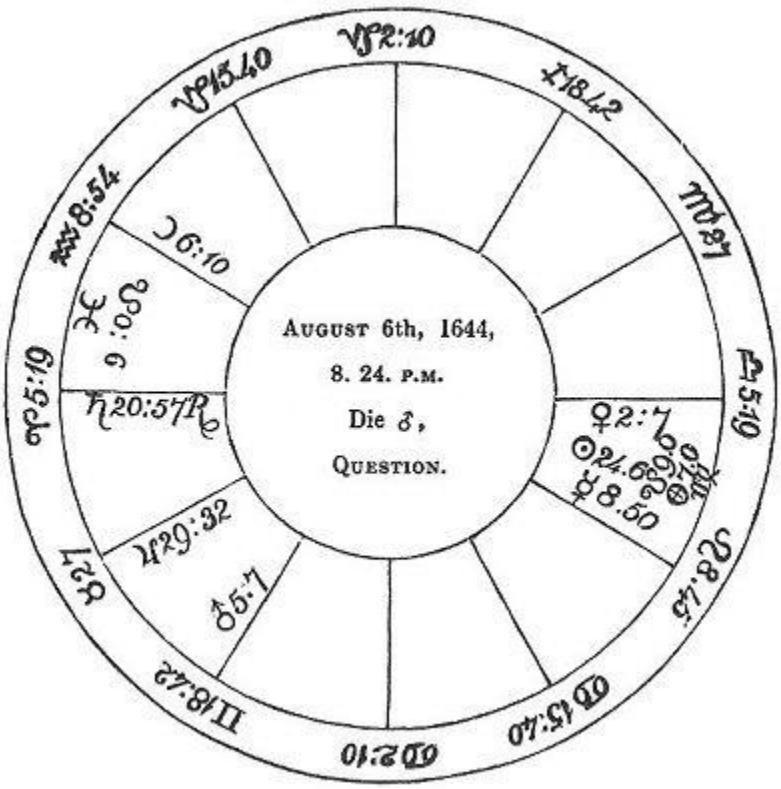

***Fig*. 27.**

QUESTION: WHETHER, THE QUERENT SHOULD OBTAIN THE PARSONAGE DESIRED?

Judgment.--In the first place, I find ♂between ♃, lord of the 9th, and ♂, lord of the ascendant, but separating. 2dly. Neither the ☽, nor lord of the ascendant, in the 9th. 3dly. There is no planet translating the light of ♃to ♂. 4thly. There is no reception between ♃and ♂. 5thly. ♄is impedited in the ascendant, and by his presence afflicts the querent, and causes him to despair of success. 6thly, The ☽separates from a △ of ♂, and applies to ☍of ☿, lord of the 3d; which intimated that some neighbour of the querent, either with a letter, words, or cross information, would wholly destroy the querent's hopes; and that mercurial men, viz. scholars or divines, would be his enemies: and as I found ♀ in ♎, opposing the ascendant, I judged that some female would inform against him, or prejudice him in his suit.

From all this I persuaded him against proceeding any further in the matter; but the parson being covetous, would proceed, and did: and when he thought to have success, behold a scurvy letter, revealing some unpleasant truths concerning a female, dashed the good man's hopes, *et exit*.

The querent was ♄and ♂exactly, had wit and volubility of tongue; and as ☿and ☽were in ☍, he under the earth, she in the 12th, he could never discover which of his neighbours it was that thus injured him; nor would he ask me. If he had, it must have been ♄, lord of the 12th, viz. some farmer or dealer in cattle, a sickly, repining character, living north-east, about fifteen furlongs, from him.

Chapter 33. The Tenth House And Its Questions.--Viz. Office, Dignity, Preferment, Government, Trade, Or Profession, etc

THE usual significators are for the querent; and the 10th house, its lord, and the ☉, for the place, preferment, &c., inquired after.

If the lord of the ascendant or ☽be both joined by good aspect to the ☉, or by ☌or good aspect to the lord of the 10th, and this planet behold the 10th, or be therein, the querent shall gain the thing sought for, if he use proper endeavours.

Or if none of the significators be joined to the lord of the 10th, yet if the lord of the ascendant or ☽be in the 10th, unafflicted, he shall gain it; and also, if the lord of the 10th be in the ascendant; and very easily, if the two lords be going to a good aspect.

The lord of the 10th joined to ♃or ☊, and in the ascendant, he gains the office, &c., easily; if joined to ♄or ☋, and either of them in the ascendant, but well dignified, it will be gained, but with difficulty.

The lord of the 10th receiving ☽, or the lord of the 1st, denotes success. And if there be translation of light from the lord of the ascendant to the lord of the 10th, it denotes that it will be gained by means of such a person as the planet translating the light describes.

If the lord of the ascendant apply to ☌of the lord of the 10th, and there happen no previous abscission by any other planet before the ☌be complete, the querent will gain his desire, but he must labour hard for it.

If any planet be in ✶or △ to the lord of the 10th, or the ☉, let the querent make application to such persons as they describe; for they may greatly befriend the querent by means of their influence.

If the promising planet in any case be in an angle, the matter will be readily completed; if in a succeedent, but slowly; and if in a cadent, the affair goes backward at times; but may, at last, be performed, if the planet be otherwise well dignified.

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If an evil planet behold ☽or the ascendant by □or ☍, without reception mutual, he hinders the querent by means of that person who is to solicit the cause, &c. for him.

The best sign of all is, when the two lords be joined together, and the ☽separate from the lord of the 10th, and apply to the lord of the ascendant; but it she apply to either, it is good.

If the lord of the ascendant apply to good aspect of the lord of the 4th, it denotes success; but if the lord of the 4th be joined also to the lord of the 10th, the matter shall be effected, but only after much delay and vexation.

Whether a Person shall remain in the Office he holds, or not?

Observe whether the lords of the 1st and 10th be in ☌, or any aspect; and note whether the more ponderous planet of the two be in any angle but the 4th; if so, he shall not be removed. But if the heavy planet be in the 4th, or approaching it from the 5th, he will leave his office. Yet, if there be reception between the two lords, he shall recover it again; and if the reception be mutual, he returns speedily, and with more honour than before.

You may judge the same if the lord of the ascendant be joined to a planet in the 3d or 9th, or to their lords, and after separation be joined to a planet in any angle, except the 4th.

But if the two lords (of the 1st and 10th) separate from each other, then he returns no more to his office, but loses it entirely.

If the lord of the ascendant, or 10th, or the ☽, are disposed of by any planet in an angle, (except the 4th), and that planet be slow in motion, he shall not be removed until that planet. be combust or retrograde, or leave the sign he is in; but much about that time he will be removed, unless some powerful aspects intervene.

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If the ☽be joined to the lord of the 10th, and he in the 10th, the officer or governor, &c., shall not be removed.

If the lord of the ascendant, or ☽, be joined to the lord of the 10th, and he more weighty than either of them, and in the 10th, 11th, or 5th houses, free from impediment, though he behold not the 10th, the officer shall be transferred to some other place or office; but if he behold the 10th, he shall remain where he is.

If the ☽be joined to any planet not in his essential dignities, though with reception, (unless it be ♄or ☊ by ✶or △), the querent shall leave his employment, office, &c. If either the lord of the 4th, or ☽, be in the 4th, and ♈, ♋, ♎or ♑, be on its cusp, he will leave it; and this is more certain if ☽be then joined to the lord of the 4th, and he peregrine. The same may be feared if ☽be in ♑, and afflicted, or if she be void of course, and the lord of the ascendant be afflicted.

Whether a King expelled his Kingdom, or an Officer having lost his Place, shall be restored?

The ascendant and its lord are for the querent, be he king, duke, or gentleman, &c. Observe, that if the lord of the 1st be in ☌with the lord of the 10th, and the more ponderous planet behold the 10th house, then the king or ruler, &c. shall be restored.

If the planet do not behold the 10th house, observe whether ☽be joined to any planet in the ascendant, or 10th, which also will denote his restoration. If ☽be in ♈, ♋, ♎, or ♑, he returns the sooner. If the lord of the 10th be joined to a planet in the 10th, or the ☉, (but not by ♂to ☉), it denotes the same. The lord of the 10th a lighter planet than the lord of the 4th, and separated from him, argues the same.

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If the lord of the 10th be lighter than the lord of the ascendant, and be joined to him, he shall return to his office, &c. So also, if ☽be joined to the lord of the 10th, and behold the 10th house, unless disposed of by a peregrine planet under the earth.

The lord of the 1st aspected and received by a planet not afflicted, he returns; if not received, he will not.

The ☽joined to a planet in the 9th, (it not being a fortune), shews that the king, &c. recedes from his kingdom, &c. If it be a fortune, and in ♈, ♉, ♋, ♌, ♎, cp, aq, he will return; and if it be in ♊, ♍, ♐, or pi, he obtains office, power, &c. in another place.

The lord of the 10th, or ☽, being afflicted by ♂of an infortune in any angle, the king, &c. shall never be restored.[122]

Of the Profession, Trade, or Employment of which any one is capable.

Consider the lords of the ascendant and 10th, and the cusps of those houses, the, and ☽, also the places of ♂ and ♀; for these two planets are the significators of trade or employment. Observe which of the two (♂ or ♀) is the most powerful, and note the sign he may be in; also consider the four angles, and any planet in them. If they be in fiery signs, or the majority of them, (viz. ♂, ♀, the planet in an angle, and the cusps of angles, especially the 10th), and ♂ have any dignity in the place of the lord of the 10th, or the ☉, say the querent will make a good tradesman, &c. in any business where *fire* is used, or of its nature; and if the lord of the 10th be in his exaltation, he will do well in serving the king, or any high nobleman, &c.

If the significator of the employment, (usually the lord of the 10th, or a planet, especially ♂ or ♀, in the 10th, near the cusp), be in ♈, *weak*, he will make a good cattle-dealer,

groom, farrier, grazier, &c.; if *strong*, a coachmaker, veterinary surgeon, &c., where he has to do with horses or great cattle, in a respectable way.

If the significator be in ♉, then husbandry will best suit him; or gardening, corn-dealing, grazing, &c.; or if ♀ be the significator, such things as appertain to women's affairs, a soap-boiler, fuller of cloth, scourer, &c.

If the significator be in ♊, he will make a writer, clerk, bailiff, &c., or a surveyor, painter, astronomer, astrologer, geometer, schoolmaster, &c.

If he be in ♋, he will be fitted for a variety of occupations; but he will be likely to go to sea, or to deal in liquids, such as wines, beer, &c.; and he will be fond of political distinction.

If he be in ♌, he will make a good horse-jockey or coach-man; a smith, watchmaker, glassblower, huntsman, or cow-doctor; or to do with any trade which uses fire.

If in ♍, he will make a good secretary to a person in power, a schoolmaster, accountant, stationer, printer; he will be an excellent politician, or be a good astrologer, &c.

If in ♎, he will be a good poet or orator; singer, or musician; silkman, or linendraper, &c.

If in ♏, he may prove a good surgeon, apothecary, or physician; or a brazier, founder, brewer, vintner, waterman, of master.

If in ♐, he will do very well to make a clergyman, to study chemistry, to buy and sell cattle, or to be a cook or butcher.

If he be in ♑, he will prove a good chandler, victualler, farrier, farmer, dealer in wool, lead, or farming commodities.

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If he be in ♒, he will make an excellent ship-carpenter; and if any planet aspect him out of a watery sign, he may prove a good sailor or ship-master, or a painter and ornamenter of ships, or a merchant.

If he be in ♓, he makes a good jester, singer, player, &c., or brewer, or fishmonger; but generally the genius is dull, and the party given to sottishness.

As fiery signs shew workers at the fire, whether gold-smiths, &c., or bakers, &c., so earthy signs shew occupations connected with the earth, as potters, ditchers, brick-makers, gardeners, &c.; airy signs import singers, game-keepers, actors, &c.; and watery, sailors, fishermen, water-men, laundresses waiters in taverns, &c.

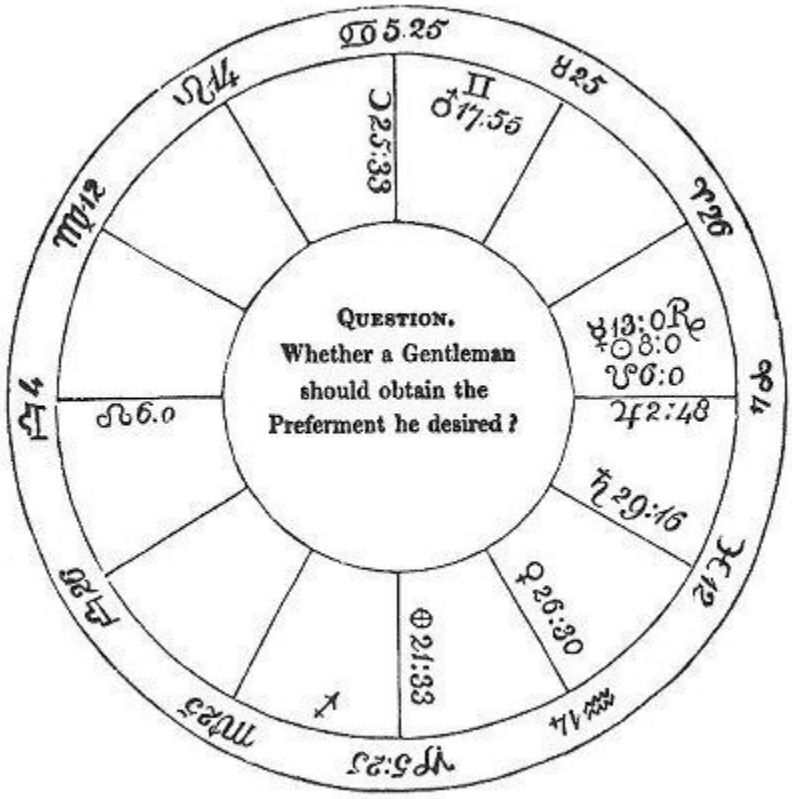

***Fig*. 28**

JUDGMENT ON THE ABOVE FIGURE.

The ascendant and ☌ are for the querent, the 10th house for the office or preferment he expected.

Finding ☽strong in the 10th, was one argument that he should succeed. In the next place ☽, applied to △ of ♄, who has exaltation in the ascendant, and who receives ☌ by house, and is received by her again by exaltation. The ☽applying to △ of the lord of the 4th (♄), argued that in the *end* he should obtain the office; but as ☉was in the 7th in ☍to the ascendant, with ♋, and was lord of the 11th, I judged that he employed as a friend a *solar* man, who was false, and did rather envy than feel friendly to him. I concluded, that with some difficulty he would obtain the office, notwithstanding the opposition a pretended friend offered; and so it came to pass within three weeks, and he then discovered that his friend was false; who had a great scar in his face, his hair of a blackish colour, shewn by ☉being so near ♋. The separation of ☽from □of ☿, argued that he had delivered many petitions about it, hitherto without any success.

Chapter 34. Of The Eleventh House, And Its Questions, Viz. Of Friends, Hopes, Property Of The King, etc

IF the lord of this house be strong, fortunate, and well aspected, it foreshews the obtaining the thing hoped for; also the love and concord of friends, &c., if that be the question.

Whether any one shall have the Thing hoped for?

Observe whether there be any good aspect or reception between the lord of the ascendant and 11th, or translation of light, or that the lord of the ascendant be in the 11th, or the lord of the 11th in the ascendant. All or any of these give reason to expect

it. But if there be none of these, note the ☽, and if she be not well qualified with the lord of the 11th, nor any benefit, or ☊in the 11th, judge the contrary.

The lord of the 11th in an angle, received by the lord of the ascendant, you may judge in the affirmative.

If the receiver of the ☽be in a common sign, judge that he shall have but part of the thing hoped for. If in a moveable sign, he shall have but a little, a mere sign of the thing; but if the receiver be in a fixed sign, he shall have the whole or complete thing. Yet, if the receiver of ☽be unfortunate, the matter shall get some injury or hurt, &c. after he is in possession of it.

If there be mutual reception between the receiver of the ☽and the ☽, he shall obtain the thing, and more than he looked for. And if the lord of the ascendant be also received, he shall obtain whatsoever he hoped for, that is feasible or possible.

If the querent's significator or ☽apply to a fortune, not cadent, he may expect the thing desired.

N.B. if the querent *name* the thing hoped for, then judge of it by its own proper house, &c.; as, if it be money the 2d, if it be children the 5th, &c.

Of the Sincerity of Friends.[123]

Good planets in the 11th, or ☊there, or good aspects between the lords of the 11th and ascendant, denote the friends of the querent to be sincere; and if they throw good aspects to the cusp of the 2d house, its lord, or ⊕, it denotes gain thereby. Evil planets, and evil aspects in like manner, denote false friends and losses. The lord of the 12th in the 11th, denotes a secret enemy under the guise of friendship. ☿in the 11th, shews wavering, unsteady friends, unless he be in a fixed sign.

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Chapter 35. Of The Twelfth House, And Its Questions, Viz. Of Imprisonment, Great Cattle, Private Enemies, Banished Men, etc

IF a question be asked regarding secret enemies, who are not named, observe the lord of the 12th, and planets therein, how they aspect the lord of the ascendant, and from what houses, &c. If the lord of the 12th behold the lord of the ascendant from the 6th, 8th, or 12th, or from the 4th, 7th, or 10th, then there are some who privately wish ill to the querent.

To know who a private Enemy is.

Observe how the lord of the 12th is affected, and whether he be with good or evil planets, and how he behold the lord of the ascendant. If he be in the 6th, or joined to its lord, it spews the secret enemy is afflicted with some secret disease or malady; if the lord of the 6th be in the 12th, he is also sickly. If the lord of the 12th be in the 10th, or with its lord, he is in favour with the king or some person of rank; and if he be strong, it will not be well for the querent to meddle with him, especially if he aspect the lord of the ascendant or ☽by ☐or ♂. If the lord of the 12th be with the lord of the 4th or 8th, or in those houses, he is sickly or near dying, or is repining, and very miserable. Consider and judge farther, as in former cases directed.

Whether a Person committed to Prison shall be discharged?

First learn your ascendant exactly, by knowing what relation the quesited bears to the querent. If ☽be swift in motion, it denotes a short stay in prison; if she aspect a planet in the 3d or 9th by ✶or △, or by ☐, if with reception), he shall soon leave the prison; the

same, if she aspect the lord of the 3d or 9th, and be not in an angle. As you judge by ☽, judge also by the lord of the ascendant. But these aspects must be by application.

The lords of the angles being in angles, is an ill testimony; and so much the worse if the lord of the ascendant be in the 4th, or if either he or the lord of the 12th dispose of each other. It is still worse if the lord of the ascendant be disposed of by a planet in an angle, especially a malefic; and worst of all if that malefic be in the 4th; and if he be the lord of the 8th, he may expect to die in prison. The ☽disposed of by the lord of the 12th, or any malefic, is a sign of a long stay; and it is still worse, if her dispositor be in an angle, and especially in the 4th. If, however, the disposing planet be in a moveable sign, or swift in motion, it shortens the time; but a retrograde planet shews a long detention. If the lord of the ascendant, or ☽, be combust, it shews a long imprisonment.

The ☽and ☿in moveable signs, when ☿is lord of the ascendant, shews speedy enlargement, especially if they aspect a fortune. If ♃ascend, or be in ♂with ☽, or ☋ be in the ascendant in ♂with ☽, or ☿be in ♂with ♃, and aspect the ☽, or ☽apply to ♃or ☋, he will be discharged. The dispositor of ☽with a fortune denotes the same.

Whether a Prisoner of War shall escape or be exchanged, &c.

If the lord of the ascendant separate from the lord of the 4th, and apply to a fortune; or if the lord of the ascendant be cadent, or leaving an angle, he shall escape. Also if he separate from combustion, or ☽get from under the beams of ☉.

If at the time of being taken, or of the question, a fixed sign ascend, or the ☽, or lord of the ascendant, be in a fixed sign, or in ♓, it denotes long imprisonment. The same if a fixed sign be on the 12th, or its lord be angular, and in a fixed sign. The ☽, or lord of the 1st, in ♉or ♌, and in ♂to ♂, shews danger of being slain by the sword, or by quarrelling; if in ♂to ♄, it shews irons or severe punishments. (If it be an ordinary prisoner, these may shew sickness, want, and ill treatment, or accident, &c.)

An infortune in ♒, shews a long imprisonment. If the lord of the ascendant be in his fall or detriment, and the ☽in ♒, the same; also the ☽, or lord of the 1st, in the 8th or 12th. If ☽apply to a fortune, and the lord of the ascendant and the cusp of the ascendant be fortunate, it denotes liberation.

Note.--♀ is better than ♃in this question, especially if in aspect to ☿or ☽. If ☽be with ♄, and ♃behold them by ☐, and ♂ by △, it denotes that, after a long confinement and suffering, he shall break prison and escape.

If a felon, &c., be imprisoned when ☉ascends or rules the ascendant, he shall escape (the ancients declare) within a month; if ♀, within 40 days; if ☿, he has long imprisonment; if ☽, his state will depend on and change according as she has applications with other planets; if ♄, he has long confinement; if ♃, short; and if ♂ he shall be ill-treated, beaten, put into irons, &c.

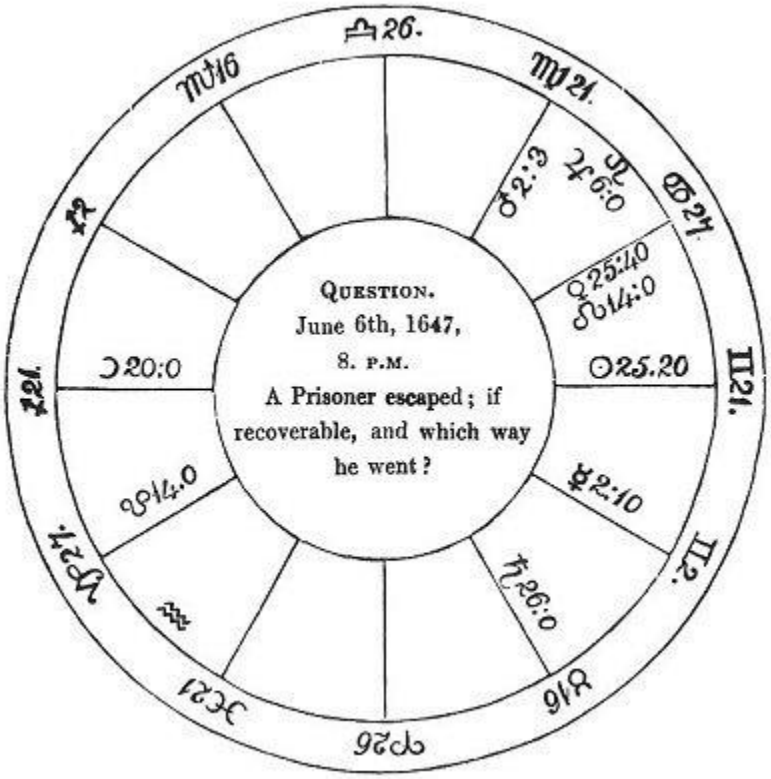


***Fig*. 29**

JUDGMENT ON THE ABOVE QUESTION.

The prisoner's person is described by ♐, the cusp of the 12th, and by ☿in ♌. The way he went, and intended to go, is here shewn by the cusp of the 12th ♐, and by ♌, where ☿is, and by the sign and quarter of heaven wherein we find ☽.

All of them considered, they signify, unanimously, that the prisoner would go eastward, or full east, (*and so he did*). The closeness of ☽to the ascendant shewed that he was not yet out of town, or, at least, that he would not be far from town. And as ☿was in the 8th, I judged that he lay obscure for awhile, viz. a night; but that then he would go away, (*which he did*).

I confidently affirmed, that he should be taken again by some man of authority; for ☽separated from △ of ☿, his significator, and applied to ♂of ☉, both in angles. It never fails, but that if the ☽, or the significator of a fugitive, be afflicted by an unfortunate planet in the 7th house, that fugitive, or prisoner, is again taken. In the next place, I found ☿and ☿in ✶, ☿in his own house, and applying to ☿; therefore I judged that the querent should have news of the prisoner by letter, or by some young man, within six or seven days, or when the significators came to ✶aspect; which was six days afterwards. The truth is, that on the next Friday he had a letter to tell where he was, and on the Sunday he apprehended him by authority.

Zain Aowan

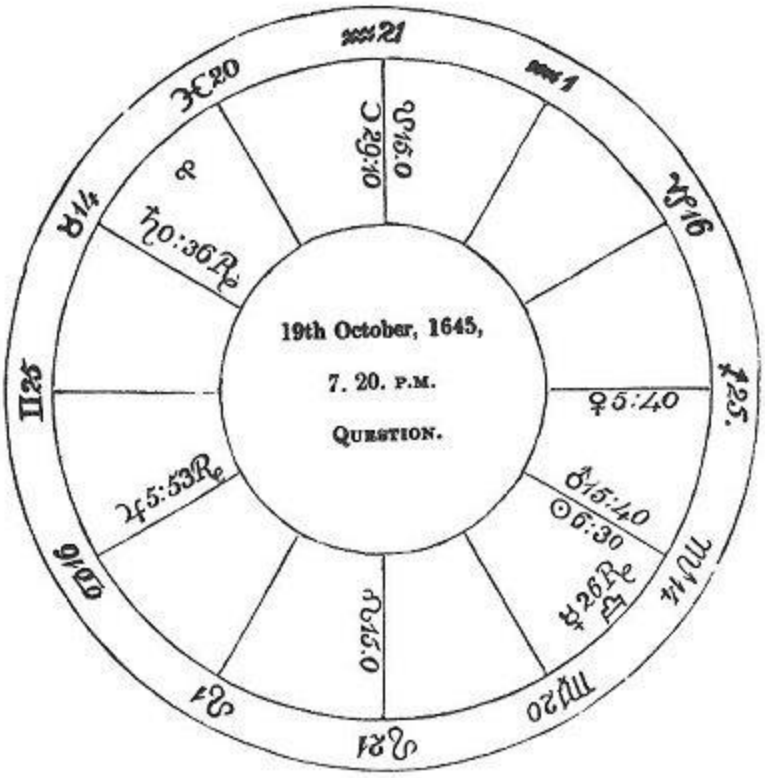


***Fig*. 30**

QUESTION.--A LADY ASKS WHEN HER HUSBAND, WHO IS IMPRISONED, SHALL BE DELIVERED?

Judgment.--The lady's husband is signified by ♃lord of the 7th; he is in ♋retrograde, and had the day before been in △ to ☉. The ☽applies to ✶of ♄retrograde, then to △ of ♃with a most forcible reception. From hence I made, not many words, but told the lady she need not trouble herself to make friends to apply to his majesty, for that I was assured that either he was, or would be, within three day; discharged from his imprisonment by means of a solar man, a commander who would release him and furnish him with what was necessary for his convenience.

The truth is, he was released, and the garrison where he was prisoner taken the day before the question was asked, (when ☉was in △ to his significator), by an honest

parliamentary colonel, who plentifully relieved him with money, and all convenient necessaries. ♄in his exaltation, retrograde,*in a moveable sign*, and in △ to ☉, shewed short imprisonment; the more so, as ☉is lord of the 4th, and the △ so perfect.

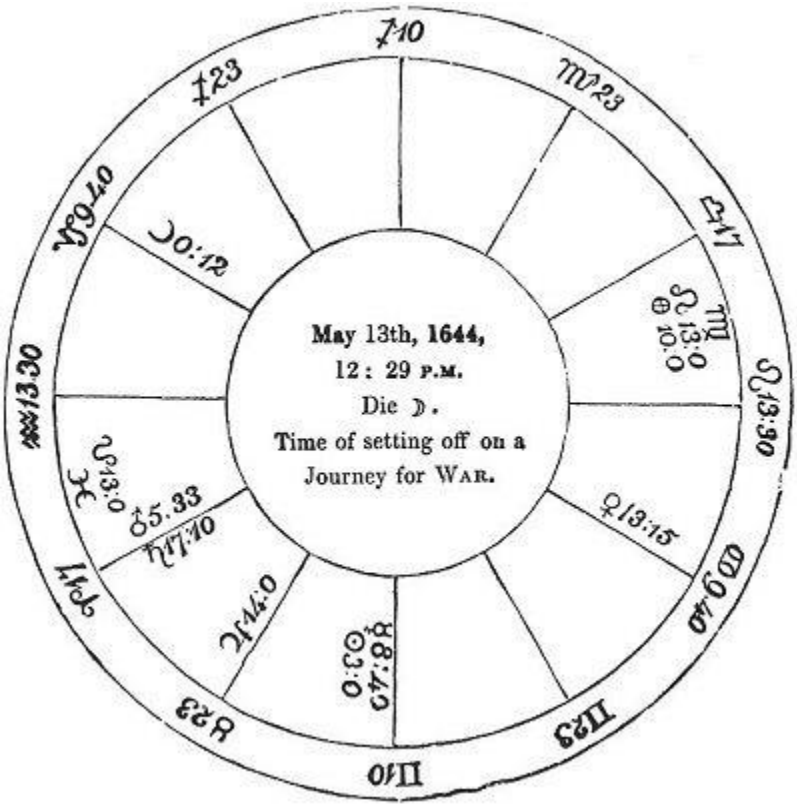


***Fig*. 31**

The Time of His Excellency ROBERT *Earl of* ESSEX *last setting forth into the West of England.*

Here ♒, the ascending sign, well represents his form of body, for it was comely, &c. ♄, ☿, and ☿, his mind, they having all dignities in the ascendant. ♄has also much to do with his qualities, being lord of ♓, an intercepted sign in the ascendant.

I first considered that the ☽separated from a △ of ♄, and applied to a □of ♂, lord of his house of substance, assistants, &c., and also of the 9th, his house of journeys. This intimated he should have but slender success, and lose much by his present march.

Finding ♍in the ascendant, I judged that he would be betrayed in his councils; and seeing ♄, lord of his ascendant, peregrine, and in his fall in the 2d, the ☽in her detriment, and ⊕ disposed of by ☿, lord of his 7th, signifying his enemies, and that ♃, the general significator of wealth, casts a □to the ascending degree, I gave this judgment:--that his Excellency must expect no success from this employment; that he would have no honour by the journey; that he would be extremely crossed by men of great power here at London, who pretended great friendship to him; (♃, lord of the 10th and 11th, being in □to his ascendant), that he would be betrayed wholly, and be in danger to lose all; that, in short, I was extremely sorry he had chosen so unlucky a time to set forth, &c. &c.

The issue was thus, (for I write to posterity): he prospered in the beginning, and daily men of good quality and authority jeered at me, and derided my prediction. I was quite content to be abused, provided that he might have had success. But observe, that on the 8th September following, came sad news, that on the 2d of September this worthy man had surrendered all his ammunition to his majesty, having only quarter for his soldiers; with some other articles, which were dishonourably performed, to the eternal shame of the royal party.

zaid n. adwan

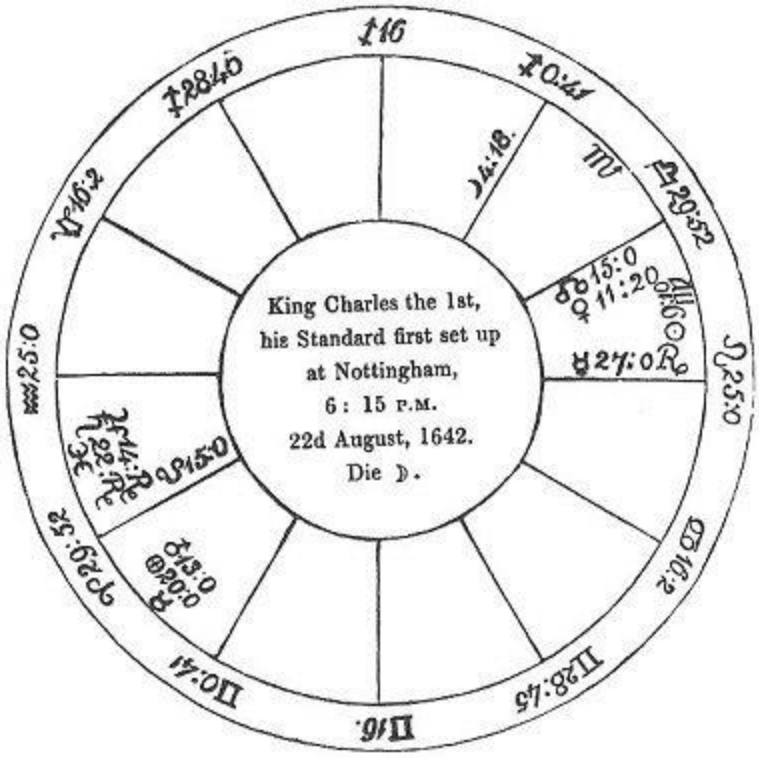


***Fig*. 32**

JUDGMENT ON THE ABOVE FIGURE.

The above remarkable era in the life of King Charles the First affords a striking illustration of the truth of the rules of the science as laid down by our author.

The King is here represented by the ascendant, the ☽, and the lord of the ascendant, because *he* began the WAR, as it were, by this act.[124]

Here we find ♄peregrine, and retrograde in the ascendant, a decided testimony of ill success; the ♌is also ascending, a sign of evil and treachery to the King. His second house is afflicted by ♂, who is in his detriment, and disposed of by ☿, the significator of his adversaries. The King's ⊕ is afflicted by ☌of ♂, and by □of ☿, having only the ✶of ♃, who is retrograde, and in ☍to ☉n, the joint significator of his foes. Then we find the ascendant in ☍to ☿, the significator of the enemy; and also the ☽in □to the ☉, cadent

and peregrine. Each one of his significators is afflicted, and ♃, the lord of the 11th, his house of hopes, and of the 10th, the house of honour, and dispositor of ☽, is afflicted by the ☍of ☉, by being retrograde, and by being within orbs of a ☌of ♄, lord of the 12th, the house of disgrace and misfortune.

Now as regards the adversary, we find ☉and ☿both ruling the 7th, and placed therein in mutual reception, ☉being in the house of ☿, and ☿in the house of ☉. The ☊is also in the 7th, and ♀ lady of their 2d, or house of substance and means, assistants, &c., is strong in her own house n, angular, and no way afflicted.

The general significator of *war*, ♂, is in his detriment, and is disposed of by ♀, a benefic in the 7th. The lord of the adversaries 10th, or house of honour, is ☿, and he is in reception mutual with the ☉, angular, and no way impedited, except being retrograde; and he is in the term of ♂, and ♂ is in his term; another mutual reception.

All these things were decided testimonies that his Majesty should fail in all his endeavours, and eventually be ruined. The lord of the 12th being also lord of the ascendant, shewed that he had been himself his greatest enemy, and the cause of his misfortunes. The lord of the 12th, (house of imprisonment) being in the ascendant, shewed that he should be imprisoned; the more so from his being in ♓. And history tells us how truly the "signs of heaven" spoke on this occasion; for "all the remainder of his life, after this August 22d, 1642, was a mere labyrinth of sorrow; a continued and daily misfortune."

The student will perceive that his death was plainly foreshewn by the ☽applying to ✶of ♀, lady of the 8th, or house of death, from signs of long ascension; in which a ✶, it is said, has the same effect as a □in other signs. The ☽moreover is with *Antares*, a violent fixed star, (now in about 7° 30′ ♐) which is said to denote a *violent death*; which is farther shewn by the □of ☽to ☉, the latter being in an angle. The lord of the 4th being in

to the ascendant, was also a token of his death; and perhaps ♏being in the 8th, and ♂, its ruler, approaching *Caput Algol*, which is said to denote *beheading*, might intimate that; but all such minute points must be left to posterity to decide, when the science will be better understood.

The hour of the King's death was 4h. 4m. P.M., 30th January, 1648-9, when the heavens were as represented in the following figure. The student will see that ♄, lord of the ascendant in this figure, had exactly gained the □aspect of the ☉at that time, being in ♊9° 25′; and that ☉was just transiting the ascendant of this figure; and that the cusp of the 10th (which denoted the King) is there the place of ♄in this figure. The ☽is in the 29th degree, of ♑, a □aspect to the cusp of the 8th, in this also; and ☊, part lord of the ascendant here, is in ♂with the place of ♇, lady of the 8th. All these coincidences must be considered by the genuine searcher after truth as strong evidences of the truth of planetary influence, as evinced in *horary astrology*. The consequences and final result of the mad attempt of this unhappy King to make war upon the nation were here plainly depicted; and it is for the opponents of astrology to shew, that these things are merely accidental coincidence, or the fruit of *chance*, the deity they so fondly worship.

zaid nadwan

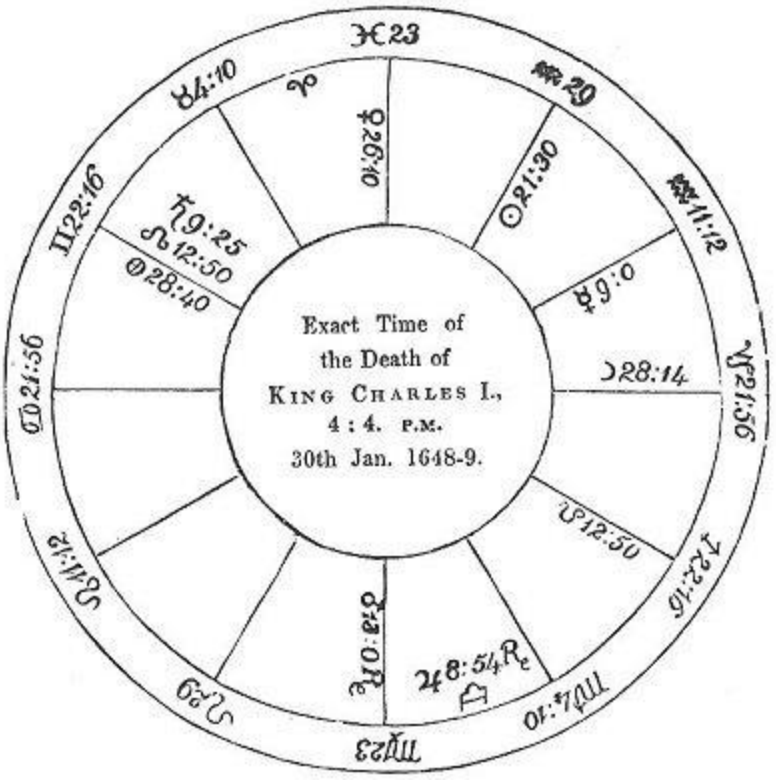


***Fig*. 33**

OBSERVATIONS ON THE ABOVE FIGURE.

King Charles I. was born at *Dumfernline*, in Scotland, about fifteen miles from Edinburgh, on the 19th November, 1600; at which time ☉was in 9° of ♐. Hence, at the period of his death, ♄was exactly in ☍to the place of ☉at his birth, and ♂ nearly in □to that place.

The ☍of ♄to ☉will ever be found to bring trouble, sorrow, disgrace, and often death, to the native. It will be seen that at the time of the King's setting up his standard at Nottingham, the ☉was exactly transiting the □of his own place at birth; a decided cause of failure, discredit, &c. But although we mention these circumstances, we would remind the student that such transits can have but little effect unless evil directions be operating at the time; which, there can be no doubt, was the case in the nativity of the unfortunate and ill-advised King Charles the First.

If we regard this figure as that of the exact commencement of the COMMONWEALTH, we shall find that it will point out the result of that change in the government, as it would of any other thing which might then have commenced.

The ☽is lady of the ascendant, and she is in her detriment and peregrine; hence the commonwealth was not *successful*; her being in a moveable sign, and moveable signs on the ascendant and 7th, and such signs intercepted in the other two angles, shewed that it would not be *permanent*. The lord of the 4th being also lord of the 12th, shewed that it would come to an end by means of the exertions of its *secret* enemies; and as ♄is also lord of the 7th, and rules the ☽, it shewed that its *enemies* would overthrow it at length. The end of it was clearly pointed out to be when ☽came to ☌of the lord of the 4th, ☿, and to the △ in signs of short ascension of the lord of the 8th, ♄, who is very powerful, as being in reception with ☿, and △ with ♃, and ruling both ☉and ☽, and being also with ☊. If we calculate from the place of the ☽to the △ of ♄, we shall find eleven degrees and a quarter, which would be equivalent to *eleven years and a quarter*; which, it is well known, was THE EXACT DURATION OF THE COMMONWEALTH.

Aphorisms, By Zadkiel

1st. In all cases of hearing rumours or reports, receiving letters or messages, &c., if you erect a figure for the exact minute of hearing or reading the news, &c., the lord of the 3d in good aspect with the cusp of the 7th, or a planet in the 7th, shews that the news is *true*, and that you are not deceived; if he be in evil aspect, either semi-square, ☐, sesquiquadrate, or ☍, the news is *false*.

2d. Whenever any person applies to another on any business whatever, either by letter, message, or personally, the 1st house represents him who is the first mover in the matter, who either goes or sends to the other, and the 7th represents the person

applied to. Therefore, when a person reads a report in a newspaper, or elsewhere, the 7th shews that person, because the report, &c. comes. as it were, to him.

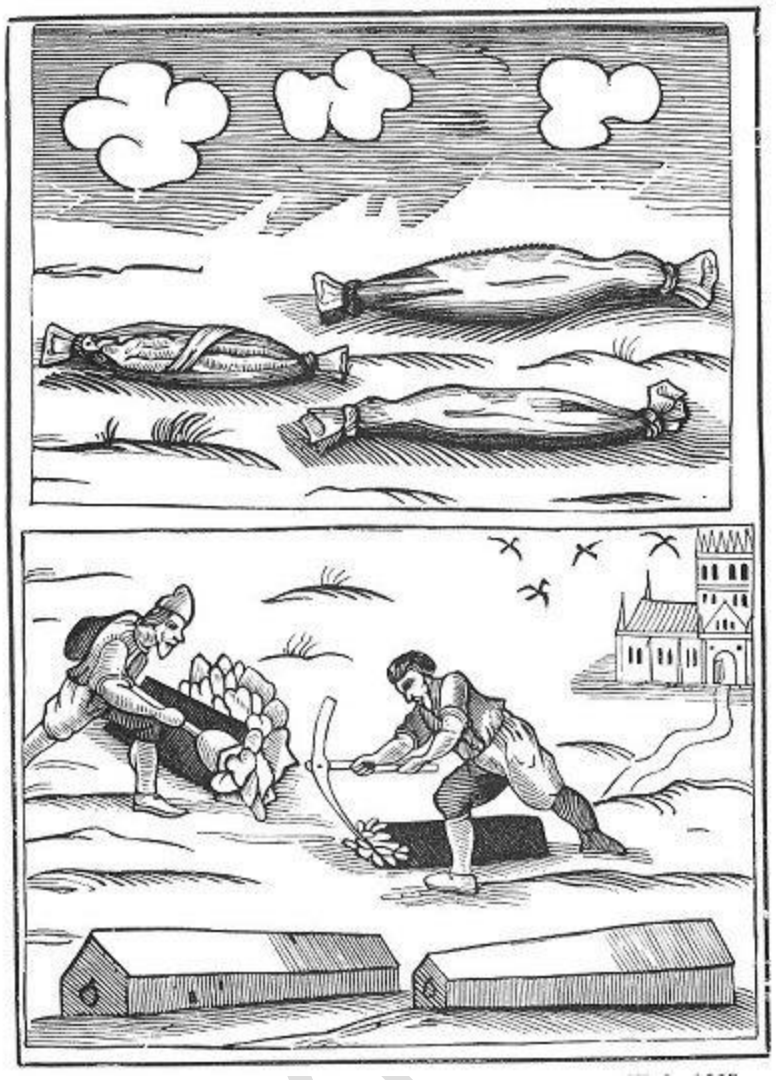
3d. If you apply to a person for goods of any kind, and they are promised, the application of the lord of the 2d to the lord of the 8th, or a planet therein, shews the time when they will be received.

4th. If you receive a bill of exchange, the figure for that time will shew whether it will be paid. If ⊕ receive a good aspect of the lord of the 1st, it will be paid; but if ⊕ receive any evil aspect of the lord of the 1st, it will not be paid. *Probatum est*.

The ⊕ always denotes money, whether in cash or bills; but *property*, whether in goods or lands, houses, &c., is always shewn by the lord of the 2d, or a planet therein.

Appendix: Explanation Of The Hieroglyphics

zaid n. adwan



FACSIMILE *of the* HIEROGLYPHIC *of the* GREAT PLAGUE *in* 1665, *published by* W. LILLY, *in the* YEAR 1651.

FACSIMILE *of the* ASTROLOGICAL HIEROGLYPHIC *of the* GREAT FIRE *in* LONDON, SEPTEMBER 2*d*, 1566, *published by* W. LILLY, *in the* YEAR 1651.

THE first of these curious cuts, which have been exactly copied from our author's tract, entitled "*Monarchy or no Monarchy in England*," is intended to represent a great mortality, in which the vast number of deaths should so far exceed the supply of coffins, that the dead must needs be buried in their shrouds, or merely stitched up in sheets, &c., as therein rudely represented.--

The second cut is an *Astrological* Hieroglyphic, as may be understood by the horoscope being introduced therein; and the two children or twins are intended to represent the sign Gemini, which, in astrology, is known to rule London; and the twins are, therefore, intended to denote that city.

Their falling headlong into the fire, describes the extensive injury to be done to London by that element fifteen years afterwards. The manner in which this was foreseen by the author has been explained in our remarks on his life.

These two Hieroglyphics, even if there had been only these, whereas there were several others equally pointing out future events, published with them, would ever remain undeniable monuments of our author's skill, and of the substantial truth of the science of astrology.

Description Of Persons According As The Significator May Be Found In Each Of The Twelve Signs

SATURN *in the Twelve Signs*.

♄ *in* ♈

Gives a ruddy complexion, a spare, rawboned person, full-faced, dark hair, not much beard, addicted to boasting, resolute, quarrelsome, and very ill-natured.

♄ *in* ♉

Gives a person in no wise comely, but a heavy, lumpish, awkward appearance, dark hair, middle stature, not well made, rough in carriage, sordid, vicious, &c.

♄ *in* ♊

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Represents a person of rather tall stature, dark, sanguine complexion, oval visage, dark brown or black hair, ingenious but unpolished, perverse, and generally unfortunate in most of his undertakings.

♄ *in* ♋

Denotes a person of middle stature, rather short than tall, sickly and feeble, meagre face, dark hair, languid eyes; the body sometimes crooked; jealous, malicious, and deceitful in his dealings.

♄ *in* ♌

Gives a person of moderate large stature, broad, round shoulders, wide chest, lightish hair, large boned, surly aspect, eyes sunk, apt to stoop. Qualities tolerably good, generous but passionate; not over valiant or courageous when put to the test.

♄ *in* ♍

Represents a person of a tall, spare body, swarthy, dark or black hair, and it plentiful; a long head, solid countenance; generally unfortunate; inclined to melancholy, retaining anger; a projector of many curious matters to little purpose; studious, subtle, reserved; inclined to pilfering and indirect dealings.

♄ *in* ♎

Describes a person above the middle stature, comely brown hair, oval face, large nose and forehead, clear complexion; one opinionated of himself, prodigal of expense. They are given to debate and controversy, and seldom leave any wealth at their death.

♄ *in* ♏.

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Represents a person of a mean stature, squat, thick, trussed body, broad shoulders, black or dark hair, which is usually short and thick; quarrelsome, mischievous; one who will undertake violent and dangerous actions, though to his own detriment.

♄ *in* ♐

Gives a large body, brown hair, good make, tolerable complexion; obliging disposition, not covetous, moderately frugal, rarely profuse, but somewhat choleric. One who will not bear an affront, yet willing to do good to all; a lover of his friend, and merciful to an enemy.

♄ *in* ♑

Personates a lean, raw-boned body, dark or black hair, middle stature, dark complexion, small leering eyes, long visage, and a stooping awkward posture in walking. One who is peevish, discontented, melancholy, covetous, of few words, fearful, retains anger, and is of great gravity.

♄ *in* ♒

Gives a reasonable full-bodied person, a large head and face, rather inclined to corpulency, middle stature, sad brown hair, a clear complexion, a sober, graceful deportment. Affable, courteous disposition; of an excellent, searching fancy, and generally very proficient in what they undertake in arts or sciences; a person of a pregnant genius, yet subject to be conceited.

♄ *in* ♓

Describes a middle-statured person, pale complexion, sad or dark black hair, a large head and full eye; sometimes the teeth are distorted. A person not very comely. Active to do mischief, malicious and given to contention and dissimulation. An uncertain, fickle

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person in every thing; though often presenting a good outside, yet fraudulent and deceitful in the end. They are not loquacious, but deliberative, and do evil with malice aforethought. They are said to improve as they grow aged.

N.B. ♄always gives bad teeth; and in this sign they are generally discoloured and rotten.

JUPITER *in the Twelve Sign*s.

♃ *in* ♈

Describes a middle stature, but not stout, rather lean than corpulent, a quick and penetrating eye, a high nose, oval visage, with generally pimples or a peculiar redness in the face. They are of a free, noble, and generous disposition; very obliging, polite, and complaisant, especially to their friends.

♃ *in* ♉

Gives a middle stature, stout, well-set body, but, though compact, not handsome; hair brown, rough, and curling. Complexion swarthy; and frequently the skin looks shining or oily. The disposition reasonably good, judgment sound, deportment good, behaviour free and charitable; fond of the female sex, and very humane and compassionate to the distressed.

♃ *in* ♊

Represents a well-made, compact body, plump, yet above the middle stature; sanguine complexion, though rather dusky; brown hair, and full, expressive eyes. The deportment graceful, affable, courteous, gentle, mild, obliging, and good-natured. An admirer of the female sex, and a lover of learning. But if ♃be near *Occulus Taurus*, (in ♊6° 15′, with 2° 36′ south lat.) he will be addicted to women. And if near *Aldebaran*, (in ♊7° 30′, with 5° 29′ south lat.) he will be rash and unstable, inimical to himself, and disagreeable to

others. If with the *Bull's North Horn*, in ♊20° 20′, with 5° 22′ north lat., he will be rash and violent.

☋ *in* ♋

Gives a person of middle stature, a pale, sickly, and un wholesome complexion; oval face; hair, dark brown; body rather plump, but disproportioned. A busy, loquacious character, very conceited, and apt to intermeddle with other people's concerns. A lover of women, and fond of the water, whereon he is usually fortunate. Unless ♂ throw a good aspect to ☋, he is not courageous.

☋ *in* ♌

Represents a strong, and well-proportioned, tall body; the hair is a light or yellowish brown, and curling; complexion, ruddy; eye, fall and fiery; person, rather handsome. The disposition is noble-minded, courageous, and magnanimous, but lofty, and proud, and ambitious; one who delights in warlike actions, is a terror to his enemies, and who scorns to bend to them; fond of contending for honours, &c., and full of daring and enterprise.

☋ *in* ♍

Gives a person of a reasonably full stature, well built, and what may be termed handsome; sad brown or black hair, ruddy complexion, but not clear or fair. One who is choleric, and given to boasting; studious, yet covetous, and by his rashness often meeting serious losses; he is not easily imposed or wrought upon by any person.

☋ *in* ♎

Renders the body complete and elegant, a handsome form, and inviting face; upright, tall stature, rather slender; clear complexion, a full eye, oval face, light brown hair,

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subject to have pimples or a rash in the face. Disposition and temper, mild; behaviour, winning, and obliging to all; partial to exercise and recreation; much esteemed, and honoured.

☋ *in* ♏

Gives a middle stature, stout, compact body; dark, coarse hair, fleshy and full face; muddy, dull complexion. Manners, proud and lofty; one who is ambitious, and desires to bear rule over his equals, resolute, covetous, ill-natured, and selfish; very subtle and crafty, therefore to be very warily dealt with

☋ *in* ♐

Gives a fine, tall, upright body, good form and make, oval face, ruddy complexion, brown chestnut-coloured hair, full beard and whiskers; but the hair falls off early in life, especially about the temples; a good eye, and much expression in the face. The mind is just and noble; disposition courteous, humane, affable, and agreeable; manners, polite and accomplished. One fond of horses and hunting.

☋ *in* ♑

Describes a small stature, pale complexion, thin face, little head, not much beard, weakly person, dark brown hair, said to be darker than the beard. The mind is ingenious, but peevish, inactive, helpless, indolent.

☋ *in* ♒

Personates a middle stature, well set, brown hair, clear complexion, rather corpulent, compact make; and one of a cheerful, obliging disposition, hurtful to none; well conducted, and moderate in recreations; just and merciful, good-humoured, industrious, communicative, inclined to be scientific, and but little given to extravagance.

Zaid H. adwan

♃ *in* ♓

Describes a person of middle stature, obscure complexion, plump, fleshy body, lightish-brown hair. Disposition harmless, studious, and possessed of excellent talents and good acquirements; friendly, kind, and inoffensive. They delight in good company, and to be upon the water, where if ☽throw not an evil aspect to ♃, they are found to be fortunate.

N.B. ♃usually gives good teeth, and frequently an apparent mark in the fore-teeth. In an airy sign, he gives broad fore-teeth; in a fiery sign, crooked; in earthy they are discoloured; and in a watery sign, the teeth decay suddenly, and grow black and rotten, especially if he be in ♂with ♉, or in any evil aspect of ♄or ♂. If he be in a watery sign, in ♋, or ♌, ☿, the party has some defect in his delivery or speech. ♃in an airy sign, the body is more strong and corpulent; in a fiery sign more square made, and strong; in an earthy, a well-composed body, and in a watery, more fat and comely.

MARS *in the Twelve Signs*.

♂ *in* ♈

Represents a middle-statured person, well-set, large boned; swarthy complexion, light hair, and curling, frequently red; austere countenance, and, if ♂ be oriental, ruddy, and smooth; bold and undaunted, confident, choleric, and proud; fond of war and dispute; one who often gains by those means.

♂ *in* ♉

Gives a middle stature, well set, rather short; dusky complexion, dark or black hair, which is rough and coarse; broad face, wide mouth; he will generally have some scar or other mark in the face, which is often ruddy, but never fair. He is gluttonous, debauched, given to drinking and wenching; also a gambler, and very quarrelsome, treacherous, and ill-natured. He is generally unfortunate, but, if ♂ be near the Pleiades, remarkably so.

♂ *in* ♊

Gives a tall person, with black or dark brown hair, (though if ♂ be in the first seven degrees of ♊, the terms of ☿, it will be light), sanguine complexion, and well proportioned body. He is restless and unsettled, but ingenious; unfortunate in most things, living in a mean way, generally shifting here and there, leaving his debts unpaid, and exercising his wits for a livelihood; in short, a *chevalier d'industrie*, or mere swindler. But good aspects of ☉, ♃, or ♇, will mitigate this evil judgment.

♂ *in* ♋

Describes a short figure, and a bad complexion, without much hair, and it brown; the body is generally ill made, and crooked. The temper is sour and bad; one who is given to sottishness; a mean, servile, unfortunate creature; usually he is employed in some low business, being incapable of better.

♂ *in* ♌

Shews a well-proportioned body, rather tall; light brown hair, oval face, sanguine or sunburnt complexion, large eyes, stout limbs, and a brisk, cheerful aspect. A lover of women, given to boasting; fond of robust sports, as hunting, riding, shooting, &c., and ready for warlike occupation at any time. He dresses well, and is a favourite with the ladies, but it is generally to his prejudice.

♂ *in* ♍

Produces a middle-sized body, and well made and proportioned; black hair or very dark brown; the first seven degrees give lighter hair than the rest of the sign, being the terms of ☿; the complexion is swarthy or darkish, and generally some scar, marks, or blemish in the face. A hasty, proud, revengeful, and spiteful mind; one who retains an injury, is hard to please, conceited, and generally very unfortunate in all he undertakes.

Zain n. adwan

♂ *in* ♎

Gives a neat made, rather tall person; his face oval; complexion sanguine, and hair light brown, and soft, but, if in the last six degrees, his own term, it is more wiry and reddish. The disposition is brisk and cheerful, but fond of boasting, and very conceited; one who is fond of dress, effeminate in appearance, much attached to women, by whom he is also much beloved, and frequently ruined.

♂ *in* ♏

Produces a well-set form of middle stature, rather corpulent; swarthy complexion, black curling hair, broad and plain face. The temper is very unsociable, and rash; they are generally revengeful, ungrateful, quarrelsome, and wicked; yet of good genius and ready apprehension, excelling in mystery, &c.

♂ *in* ♐

Denotes a tall person, with a well-proportioned body, compact and well-made, sanguine complexion, oval visage; a quick, penetrating eye; the mind is cheerful, merry, and jovial; but disposition hasty and passionate, high-minded, and lofty, courageous, loquacious, and fond of applause; on the whole, a good character.

♂ *in* ♑

Represents a mean or small stature, thin, lean body, little head, thin face, bad complexion, being sallow and obscure black, lank hair. An ingenious mind, witty, shrewd, and penetrating; generally fortunate, and successful in his undertakings.

♂ *in* ♒

zain.adwan

Gives a well-composed body, rather corpulent, and inclined to be tall (though frequently not above the middle size), fair or clear complexion; sandy hair; a turbulent disposition, and addicted to controversy, &c.; not very fortunate in general.

♂ *in* ♓

Represents a mean stature, rather short and fleshy; a bad complexion, far from handsome; a debauched look; light brown hair; sottish and stupid; a great lover of women (if in his own terms or those of ☿, sly and artful), deceitful, idle, and worthless; not friendly to any one.

N.B. If ♂ be in ☌, ☐, or ☍of ♄, or with ☋, the disposition is very evil, especially if they be in angles; when the person he describes is very fierce and violent. He is the giver of courage and resolution, which, if he be weak and afflicted, are very deficient. If ♂ be in fiery signs, he is hasty and choleric; and there is generally observed to be a falling in of the cheeks, and a lightness of feature, with an angry look; in earthy signs, a sullen, dogged temper; in airy signs, more free and obliging; in watery, sottish, dull, and stupid, unless he be well aspected by ♃, ☉, or ☽.

The SUN *in the Twelve Signs*.

☉ *in* ♈

Describes a good stature, strong and well-made; a good complexion, though not very clear; light hair, flaxen or yellowish, and large eyes. The man is noble, valiant, and courageous; delighting in warlike actions and enterprise; he gains victory, is famous, and a terror to his enemies, &c.

☉ *in* ♉

Zaid n. adwan

Gives a short, well set, rather ugly person; dusky complexion, brown hair, large broad face, wide mouth, and great nose. A confident, proud, and bold man, fond of opposition, proud of his physical strength, and one who generally is victorious.

☉ *in* ♊

Represents a well-proportioned body, above the middle stature, sanguine complexion, brown hair. He is affable, courteous, and kind; not very fortunate, as he is so meek and mild-tempered, that he is controlled and imposed on by others.

☉ *in* ♋

Gives a mean, ill-formed body, deformed in the face, with a very unhealthy aspect; the hair brown. A harmless, cheerful person, but indolent, and not fond of employment; one who spends his time in sports and pastimes, dancing, &c., and is greatly addicted to women.

☉ *in* ♌

Gives a strong, well-proportioned body, and a very portly person; sanguine complexion, light brown or yellowish hair, a full face, and large staring eyes, very prominent; there is generally a mark or scar on the face. A very just, upright, and honourable man, who scorns to do any meanness; punctual, faithful to his friends, and magnanimous even to his enemies; in short, a right royal disposition; a very ambitious man withal, fond of rule and authority, and given to war and dominion, conquest, &c.

☉ *in* ♍

Makes a person something tall of stature, and slender, but very well proportioned, good complexion, dark hair, and much of it, but not black; the mind ingenious, cheerful, and fond of honest recreations, especially agreeable, convivial parties, &c.

Zaid n. adwan

☉ *in* ♎

Produces an upright, tall, and slender body, full eyes, oval face, ruddy complexion, light hair, and frequently a rash or pimples in the face. The mind is honourable, and disposition good; but the party is always unfortunate, especially in all matters of war or ambition.

☉ *in* ♏

Gives a remarkably square-built, full, fleshy person, broad face, cloudy complexion, dun or sunburnt; brown hair. The mind ingenious, but the temper rugged and overbearing; manners disagreeable, disposition ambitious; one who will not admit of an equal; they are fortunate upon the seas, or as surgeons, physicians, &c.

☉ *in* ♐

Makes a tall, handsome, well-proportioned body, oval face, sanguine complexion, or rather olive-brown or sun-burnt; light brown hair, but in the first eight degrees of the sign it is darker; one who is very lofty and proud-spirited, aiming at great things, austere and severe, and one who performs some honourable exploits, and often becomes ennobled, or receives titles, honorary distinctions, &c.

☉ *in* ♑

Represents a mean stature, ill-made, spare, thin body, oval face, sickly complexion; brown, soft hair, not curling, and if in the first six degrees of the sign, it is light brown; the party is just and honourable in his principles, a tolerably fair temper and gains love and friendship by his agreeable conversation; one who is very hasty at times, and much given to woman.

☉ *in* ♒

zain ul abdan

Describes a person of middle stature, well-made, corpulent body, round full face, clear complexion, and light brown hair (in the term of ♄it is dark brown). The disposition tolerably good, free from malice or deceit, but yet vain, proud, desirous of bearing rule, and ostentatious.

☉ *in* pi

Gives a stature rather short, body plump and fleshy, a round full face, and indifferent complexion; light brown hair; in the first eight degrees of the sign it is flaxen, and very soft: the party is extremely partial to female society, very effeminate, fond of pleasures, &c., and though harmless to others, ruins himself by extravagance, debauchery, gaming, intemperance, feasting, &c.

VENUS *in the Twelve Signs*.

♀ *in* ♈

Describes a middle stature, rather tall and slender, light hair, (if in the term of ♃, dark), good complexion, a pensive aspect, and usually a mark or scar in the face, (often marked more or less with small-pox, according as ♀ may be afflicted or not). They are generally unfortunate both to themselves and others, unless ♀ have a ✶or △ of ♃.

♀ *i*n ♉

Gives a handsome person, though the stature is not great the body is extremely well made, plump, but not gross; and if ♀ be well aspected, they are very handsome; the complexion is ruddy, but not fair; generally females are handsome brunettes, and have much the form and figure of the *Venus de Medicis*. The hair is generally brown, and, if ♀ be in her own term, it is very soft and luxuriant; if in the term of ♃, it is a shining black. The eyes are generally black, and very expressive. The temper is mild and winning, the

disposition kind, humane, obliging, &c. They generally gain much respect from those with whom they converse, and are fortunate.

☿ *in* ♊

Gives one above the middle height, slender, upright, and well-made body. The complexion clear and fair, with soft brown hair; frequently brown or hazel eyes. They are good-humoured, loving, liberal, just and charitable; and rarely guilty of any thing dishonourable.

☿ *in* ♋

Represents a short person, a fleshy body, round, pale, and sickly face, with light hair; and if the ☽be with ☿, and they in the ascendant, the face will be quite white and wan, and the hair very light coloured; but if ☿ be in the term of ♂, the hair may be reddish, and a tinge of colour appear in the cheeks. They have generally small grey or greenish eyes. The disposition is idle and dull; they are fond of low company and vicious pleasures and pursuits; if it be a female of the poorer classes, she is a frequenter of spirit shops, &c. They are very fickle and timid, put the best side outwards, and seem to be in earnest when they are not; ever mutable and inconstant.

☿ *in* ♌

Gives a person reasonably tall of stature, well-composed body, clear complexion, round face, full eye, freckled and fair skin, hair reddish, or if in the term of ☿, it may be flaxen. They are petulant and passionate, soon angry, and soon pleased again; free, generous, sociable, and good-humoured, but rather proud, and frequently indisposed, though not seriously.

☿ *in* ♍

zaid n. adwan

Shews a tall, well-proportioned figure, oval face, dark hair, or, if in her own term, sad brown, and a dusky complexion. They are ingenious, eloquent, active, and clever, of an aspiring turn, but rarely successful in their pursuits; generally unfortunate.

☿ *in* ♎

Describes an upright, tall, elegant person, extremely well made, with a genteel carriage. The face is oval, and rather beautiful, having pleasing smiles and beautiful dimples; but they are frequently freckled; the hair is brown and soft, but rather grows long than plentiful. They are kind, affectionate, and very obliging; and generally well-beloved by all with whom they have any dealings. If ☿ be in the ascendant, and there be no afflicting aspects, but ♃cast a △ from ♒, the party, if a female, will be a perfect beauty.

☿ *in* ♏

Denotes a short, stout, well-set, corpulent body, broad face and dusky complexion, and dark or black hair, (unless ☿ be in the terms of ♂ or ☿); one who has nothing very pleasant in the countenance. They are envious, debauched, and vicious; given to contention; and if ☿ be afflicted by ♄or ♂, to very disgraceful actions; and if both ♄and ♂ afflict, and there be no assistance by ☽or ♃, they are possessed of very evil propensities.

☿ *in* ♐

Represents a person rather tall than otherwise, well made, clear or sanguine complexion, fair, oval face, and brown hair. They are generous, spirited, aiming at no mean things, rather proud, passionate, yet, in general, good-tempered, kind, and inoffensive. They delight in innocent recreations, and are, in short, very obliging fortunate persons.

☿ *in* ♑

zaid n. adwan

Describes a small-sized person, short stature, a pale face, thin and sickly; dark hair, (but if ♀ be in her own term, a sad-brown). They are generally persons who love their belly, fond of enjoyment, not fortunate, subject to sudden changes in life and strange catastrophes.

♀ *in* ♒

Gives a handsome, well-formed person, clear complexion, rather corpulent or large body, brown hair, if she be in her own term, flaxen, A good disposition, quiet, affable, courteous, not at all inclined to vicious actions, peaceable, obliging to all, fortunate in his affairs, and respected by his friends and acquaintance in general.

♀ *in* ♓

Personates a middle stature, a fleshy plump body, a round full face, with a dimple in the chin, good complexion, between pale and ruddy. Good-humoured, just, kind, mild and peace-able, ingenious, but somewhat unstable, yet moderately fortunate in the world.

MERCURY *in the Twelve Sign*s.

☿ *in* ♈

Gives a mean stature, spare and thin body, oval face, light brown and curling hair, dull complexion. A mind rather ill-disposed, addicted to dispute, to lie, steal, and many tricks and unworthy actions; in short, a mere knave.

☿ *in* ♉

Gives a middle-sized, corpulent, thick person, strong and well set, swarthy sun-burnt complexion, dark short and thick hair. He is idle, slothful, one who loves ease and gluttony, and who ruins himself among the female sex.

☿ *in* ♊

Zaid H. adWan

Shews a tall, upright, straight body, well formed, brown hair, good complexion, and a very intelligent look. An ingenious pregnant fancy, a good orator, a cunning lawyer, or clever bookseller; one who perfectly understands his own interests, and (if ♇ be not afflicted) one who is a subtle politician, not easily deluded by the most cunning knave he may encounter,

☿ *in* ♋

Personates a low, short stature, or squab figure, an ill complexion, a thin sharp face, small eyes, sharp nose, dark hair; one who is given to drink, light-fingered, ill-natured, dishonest, and very deceitful and changeable; a very mean little wretch, if ♇ be afflicted.

☿ *in* ♌

Gives a full large body, and good stature, dull, swarthy, sunburnt complexion, light brown hair, round face, full eyes, a broad or high nose. A hasty, proud, conceited, ambitious, boasting, and contentious troublesome character.

☿ *in* ♍

Denotes a tall, slender, well-proportioned person, dark brown hair, (or if ☿be in the terms of ♃or ♄, black hair), not a clear complexion, a long visage, and austere countenance. A very witty, ingenious, talented mind; and if be free from affliction, a profound scholar or linguist, and capable of any undertaking which requires great ability.

☿ *in* ♎

Personates a tall body, well made, but not thin; light brown, smooth hair, a ruddy or sanguine complexion. A just, virtuous, prudent man, a lover and promoter of learning, and having great natural abilities, and many acquired accomplishments.

Zaid H. aDWan

☿ *in* ♏

Gives a short, mean, stature, full and well-set but ill-made body, broad shoulders, swarthy, dark complexion, brown curling hair. Not any way elegant or pleasing, yet ingenious and studious; very careful of his own interests, fond of the female sex, and partial to company and merry making.

☿ *in* ♐

Denotes a person of tall stature, well formed, not corpulent, but rather large boned and spare; an oval face, a large nose. and ruddy complexion. A man who is hasty but soon reconciled, rash in many things to his own injury, yet well disposed, striving after honourable things, but seldom attaining them; not very fortunate.

☿ *in* ♑

Gives a mean, small stature, often crooked make and bow-legged, a thin face and figure, dusky complexion, and brown hair. A very peevish, discontented, dejected, sickly, feeble person, yet active; one who is unfortunate to himself and disagreeable to others, owing to his suspicious nature and ill temper.

☿ *in* ♒

Shews a person of middle height, rather fleshy and corpulent, a good complexion and clear skin, with brown hair and full face. An ingenious, obliging character, inclined to study, fond of arts and sciences, very inventive, and remarkable for his talent, as well as being a humane, kind, charitable person.

☿ *in* ♓

zaid n. adwan

Gives a short, squab, dumpy figure, though if in his own term or that of ♄, rather thin, pale face, brown hair, sickly look, and very hairy body. A very peevish, repining, foppish person, addicted to wine and women; very effeminate and contemptible.

The MOON *in the Twelve Signs*.

☽ *in* ♈

Describes a person of indifferent stature, rather fleshy or plump, round face, tolerably good complexion, light brown or flaxen hair. The mind is rash, angry, ambitious, and aspiring, often changing; and he undergoes various mutations in life; not often fortunate.

☽ *in* ♉

Gives a strong, corpulent, well-set body, rather short, pretty good complexion, dark brown or black hair. A gentle, obliging, kind, sober, just, and honest man; one who gains esteem, is much respected, and attains preferment according to his situation in life.

☽ *in* ♊

Describes a tall, well-formed, upright, comely person, brown hair, good complexion, between pale and sanguine. The mind is ingenious, yet crafty and subtle to excess; not of the best disposition, nor very fortunate, unless other good testimonies by aspects of ♃, ☉, or ♇ concur.

☽ *in* ♋

Represents a middle stature, well proportioned, and fleshy person, a round, full face, pale, dusky complexion, sad-brown hair. The mind is flexible, given to change; a merry, easy, pleasant, disposition, very harmless and peaceable, fond of good company; one

Zaid H. adwan

who is generally well-beloved, and fortunate in most affairs unsteady, but free from passion or rash actions.

☽ *in* ♌

Denotes a person above the middle size, well proportioned, strong, and large boned, sanguine complexion, light brown hair, large and prominent eyes, and full face. A lofty, proud, aspiring person, very ambitious, and desirous to bear rule; one who abhors servitude or dependence, and is generally an unfortunate person.

☽ *in* ♍

Describes a rather tall person, dark brown or black hair, oval face, rather ruddy, but tolerably clear complexion. An ingenious, reserved, covetous, melancholy, unfortunate person; not in general very well disposed, and one who seldom per-forms any very commendable actions.

☽ *in* ♎

Gives a tall, well-composed body, with smooth, light brown hair, handsome and pleasant cheerful countenance, fine red and white complexion. They are merry, jocund, and pleasant, and much admired by the female sex; very fond of amusement; and, if a female, she is courted by numbers, but yet unfortunate, unless ♇, the dispositor, be very strong and well aspected, &c.

☽ *in* ♏

Denotes a thick, short, and ill-shaped person, a fleshy obscure complexion, dark hair, often black, (especially if ☽be in the term of ♃or ♄). They are sottish and vulgar, malicious, brutish, and treacherous; and if it be a female, she is generally infamous in her desires, and if ☽be afflicted by the □or ♂of ♄or ♅, she is openly scandalous.

☽ *in* ♐

Represents a handsome and well-proportioned rather tall person; oval face, sanguine complexion, rather bronzed, and bright brown or shining chestnut hair. The disposition is good, open and generous, but hasty and passionate, yet forgiving; one who aims at great things, is fortunate, and much respected by those with whom he associates.

☽ *in* ♑

Gives a person of low stature, a thin, small, weak body, bad health, and feeble, especially about the knees; the complexion bad, black hair, and small features; one who is inactive, dull, not ingenious, generally very debauched in his con. duct, and held in low esteem by his companions, &c.

☽ *in* ♒

Represents a middle-sized person, well made, and rather corpulent, brown hair, clear skin, and sanguine complexion. They are ingenious, affable, courteous, and inoffensive; a lover of curious and scientific studies, having much invention, and a person rarely guilty of unworthy actions.

☽ *in* ♓

Describes a person of a mean or low stature, but plump or fat, pale and bloated face, light brown hair, and sleepy eyes; one not inclined to action, unless of the worst kind; unfortunate both to himself and others; given to drink.

N.B. If ☽be well aspected, and in a good house, the disposition is much improved.

Effects Of The Aspects Between The Significators

zaid n. adwan

♄☌♃

If ♄be significator, he gives the querent inheritance of estates, and profit by means of agriculture; his disposition is extremely moral and grave; he may gain a fortune by merchandize, or, probably, by preaching.

If ♃be significator, the disposition is not so good; the querent seldom meets with much success in the world; he is very niggardly, and generally acquires property by some selfish and unusual means; though he seldom enjoys it like other persons. He generally lives hated by every one for his mean and deceitful ways, and dies in obscurity.

If ♂ be in □to the significator, and in aspect with, the querent is generally duped of his property, and dies a miserable death.

♄☌♂

If ♄be significator, the querent is of a rash, turbulent disposition, and generally very unfortunate; very often engaged in some public calling of the lowest order, and frequently ends his days in prison.

If ♂ be significator, the disposition is equally bad, but not quite so rash, being more sly and cowardly. Sometimes he gains favour from elderly persons, who assist him with their property, which he generally loses in the end, and becomes very unfortunate; especially if the significators be under the earth.

♄☌☉

Signifies losses to the querent by fire, (especially if they be in a fiery sign), or by men in power, who persecute him, and confine him within the walls of a prison for some contempt of the law; and he is seldom healthy or of long life.

Zaid n. adwan

If ☉be significator, the querent is generally very disagreeable, deceitful, mistrustful, and unfortunate; always losing his property by some speculation, which in the end often brings him to ruin; particularly if the querent have anything to do with the government, or persons connected with the state.

♄☌♇

Shews gain to the querent by means of ladies, to a considerable extent; he is much attached to them, greatly addicted to pleasure, and very fortunate where females are concerned. If he be a man of property, he often wastes most of it by gaming or pleasure.

If ♇ be significator, the querent is very artful, sly, unfortunate, destitute of friends, often disappointed by death; and he loses considerably by persons older than himself, especially if he be in trade.

♄☌☿

If ♄be significator, the querent is subtle and crafty, fond of researches into antiquity; one of much gravity and considerable learning; though not always of the most agreeable manners.

If ☿be significator, he is dull, suspicious, mean, cowardly, calculating, and covetous. Should he turn his attention to literature, he may gain some knowledge, although with great labour; and should he become an author, his writings may bring him into some disgrace.

♄☌☽

If ♄be significator, the person is restless and unsettled in his purposes, and often changes his residence. He is not very fortunate, though he may sometimes benefit by the populace, and by the lower order of females.

Zain ul abwan

If ☽be significator, he is poor, miserable, and dejected, of unpleasant manners, and sullen disposition; extremely unfortunate, and uncommonly covetous, though possessing scarcely any property. With much suspicious caution, he frequently commits the most unaccountable errors in affairs of the greatest consequence; as, through excess of prudence, he is very likely to doubt and deliberate in the moment of action.

♃☌♂

If ♃be significator, the querent is bold, proud, and ambitious; fond of martial exploits and enterprises; a good soldier or surgeon; though he may lose much by strife and contention, and sometimes receive wounds in quarrels.

If ♂ be significator, he is good, pious, and just; he is eminently successful in the law or the church; and often makes a fortune by those means.

♃☌☉

If ♃be significator, the querent is weak, servile, and credulous; he incurs the displeasure of men in power, by whom he is much oppressed, and often ruined; he has bad health; and is generally a vain, loquacious character, indulging in fanciful speculations about religion, and other matters, for which he is totally unqualified.

If ☉be significator, the power of ♃is so much destroyed by the power of ☉, that he has but very little effect; though the party will, in general, be very much given to religion, which, if ♃be well dignified in other respects, and not ill-aspected, will be sincere, otherwise it is fanatical or hypocritical.

♃☌☠

If ♃be significator, it promises the greatest happiness; the querent is highly favoured by the female sex, by whose means he gains great advancement; he is rich, prosperous, and

fortunate; very healthy, and greatly admired and respected. It shews great personal beauty.

If ♀ be significator, it denotes great beauty of person, (unless ♀ be in ♏or ♑), riches, honours, ecclesiastical preferment; the person so represented is truly virtuous, pious, kind and beneficent to all, with the greatest goodness of heart, and a disposition that will command universal love and esteem.

♃☌☿

If ♃be significator, it denotes a person of great learning, a good lawyer or divine, of excellent abilities and much in-formation.

If ☿be significator, he is mild, humane, religious, fond of literature; possessing an elegant mind, and a gentle, engaging disposition; he is raised to eminence, and protected by powerful patrons; he accumulates great riches, and is, in general, extremely fortunate.

♃☌☽

If ♃be significator, the person so represented is restless and changeable, and seldom sufficiently settled to procure much wealth; he is, on the whole, very fortunate, often gains considerably by marriage, and is a general favourite with the fair sex; he is a great traveller, and is eminently successful in maritime affairs and among seamen, shipping, &c.

If ☽be significator, he is fortunate in ecclesiastical affairs; or among mercantile men, magistrates, &c. He obtains great wealth, though he is liable to losses frequently by canting, hypocritical persons, who impose upon his natural kindness and generosity of disposition. He has, however, too much good fortune to be injured by those persons to any serious extent.

♂ ☌☉

If ♂ be significator, the querent is in danger by fire, lightning, or infectious fevers; it has been said in this case, with great truth, “he has the favour of kings and princes,” and it may be their frowns too, to his utter undoing; he may rise hastily, but, perhaps, to a precipice.

If ☉be significator, the querent is brave, but headstrong and violent; he will probably attain some considerable rank in the army or navy; but he will be frequently wounded, and most probably die in battle, or be killed by some accident, or fall a victim to some contagious fever.

♂ ☌☠

If ♂ be significator, the querent is kind and gentle upon the whole, though at times rather hasty; he is moderately fortunate, extremely fond of women, and not always very particular as to their respectability.

If ☠ be significator, he is wicked and debauched, a companion of prostitutes, from whom he generally receives great injury; a drunkard, frequently brawling in taverns or low public-houses; though he may sometimes meet with good fortune, he will quickly dissipate whatever property he may possess in the company of the most worthless of mankind.

♂ ☌☿

If ♂ be significator, it represents the querent as possessed of considerable ability, a skilful mechanic, or a good mathematician; one of an acute sarcastic wit; if he be in the army or navy, for which he is well qualified, he obtains great reputation for his bravery, and is distinguished still more for the policy of his measures. He is never very scrupulous

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as to the means he employs; and will pay but little respect to the persons or possessions of others, when he can gain any advantage by sacrificing them to his own interest.

If ☿be significator, he makes a cheat or swindler, a thief, robber, or treacherous miscreant; a frequenter of gaming-houses, rash, furious, and blood-thirsty. N.B.--Any evil aspect of ♄increases these evils, and a good aspect of ☉, ♃, or ♇, will much diminish them.

♂☽

If ♂ be significator, it shews one of an unsettled life and temper, and a favourite of females; he is frequently a wandering adventurer, more remarkable for the variety of his fortune than his success or abilities. He is likely to die in a strange country.

If ☽be significator, he is a bold, enterprising character; frequently in great danger of a violent death, quarrelsome, and given to duelling, &c. He. may be a good surgeon or soldier; and is seldom noted for much humanity. If a female, she is extremely likely to be seduced.

☉☌♇

If ☉be significator, it denotes one of soft and effeminate manners, a pleasing address, a great admirer of the ladies. He is too much given to extravagance and dissipation.

If ♇ be significator, he is of short life, unfortunate, and oppressed; too sickly to make much exertion; very proud and extravagant.

☉☌☿

If ☉be significator, it gives some ingenuity, but not much sound judgment.

If ☿be significator, he represents a person of mean and shallow abilities; one addicted to fraud and deception; incapable of learning anything which requires memory or

judgment, and extremely superstitious. He may succeed well in trade or business, but for study he is wholly unqualified.

☉☌☽

If ☉be significator, it represents a restless and change-able person, who aims at great things, but seldom accomplishes them.

If ☽be significator, the querent is extremely unfortunate, and generally sickly and unhappy, dejected, and oppressed by men in power. He is rash and violent, subject to burns and scalds, and has frequently some defect in the eyes; and if the ♂happen near the *Hyades*, *Pleiades*, or *Præspe*, he is likely to be nearly blind. If the ☽be applying, he is in danger of death, especially if it happen in the 8th house, or ☉be lord of the 8th; but if ☽be separating, the danger is not so great.

☌ ☌☿

If ☌ be significator, it represents one who is polite, mild, and courteous, fond of the elegant branches of literature; a pleasant companion, a favourite of females; and one of an excellent disposition.

If ☿be significator, he excels in any pursuit that requires taste; a good painter, an excellent poet or musician, of a very humane disposition, and of the most prepossessing appearance. N.B. It must be most carefully observed, whether these planets have any other familiarity at the same time; for should ♅, ♄, or ♂ be in ☐, it will make a most remarkable difference. Indeed, this must be scrupulously attended to in all cases, but especially, where ☌, ☿, or ☽may be significator.

☌ ☌☽

If ☿ be significator, it renders a man very mutable and uncertain; often promising, through goodness of disposition, much more than he is capable of performing.

If ☽be significator, he is of an easy, happy, disposition, with little care beyond the enjoyment of the present moment; a great proficient in all elegant amusements, and of an easy and genteel address.

☿☌☽

If ☿be significator, the native is possessed of great abilities, though generally very unsteady in his pursuits. He frequently travels in some literary capacity.

If ☽be significator, the effects are not very different; his intellectual powers are of the first order; he is much attached to learning, and gains great reputation by his abilities.

Of The ✶ And △ Aspects Between The Significators

♄✶ *or* △ ♃

If ♄be significator, it gives riches by means of agriculture; and he is of a sedate and religious disposition.

If ♃be significator, he is extremely grave, and frequently gains riches by legacies or mining concerns.

♄✶ *or* △ ♂

If ♄be significator, it increases the courage of the person so signified, and renders him more open in his resentment.

If ♂ be significator, he is prudent and cautious, bigotted in religion, and, should other aspects befriend ♂, he may gain an estate.

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♄✶ *or* △ ☉

If ♄be significator, he is generous and noble, though somewhat austere in his behaviour.

If ☉be significator, he is ostentatious, boastful, and conceited; he may be expected to gain by legacies, or to be successful as a farmer.

♄✶ *or* △ ♀

If ♄be significator, he is prodigal and extravagant, wasting his money among females.

If ♀ be significator, he is modest, shy, and retired in his manners; he gains the favour of elderly people, and sometimes inherits their property.

♄✶ *or* △ ☿

If ♄be significator, it gives ingenuity and subtilty, though his talents are mostly employed to little purpose.

If ☿be significator, he is very cautious and prudent, and is addicted to the study of arts and sciences.

♄✶or △ ☽

Of ♄be significator, the querent is changeable, jealous, and mistrustful.

If ☽be significator, he is vain and conceited, mean in his actions, though without the excuse of rashness, as he does nothing without much deliberation.

♃✶ *or* △ ♂

If ♃be significator, it gives bravery, and the spirit of military adventure; he is a good soldier, surgeon, or chemist.

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If ♂ be significator, he is noble, generous, and ambitious, and will rise rapidly in the army.

♃✶ *or* △ ☉

If ♃be significator, it makes one extremely fortunate, and very noble and courageous in his disposition.

If ☉be significator, he gains money rapidly, is always respected, and possesses a most excellent disposition.

♃✶ *or* △ ♀

If ♃be significator, it causes beauty, love, riches, and real goodness of heart: this is the most fortunate aspect that can be formed.

If ♀ be significator, the person is virtuous, amiable, of a noble disposition, incapable of fraud or malice.

♃✶ *or* △ ☿

If ♃be significator, it gives great learning, sound judgment, and excellent abilities.

If ☿be significator, he possesses solid sense, an open, generous disposition, and real good fortune.

♃✶ *or* △ ☽

If ♃be significator, it makes a man very fortunate, beloved by females, and much respected by the poorer classes of society.

If ☽be significator, he is just and charitable, sincere in his friendships, and generous to the full extent of his means.

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♂ ✶ *or* △ ☉

If ♂ be significator, it gives a very noble disposition, and great mind; it causes one to rise rapidly in the army; he a uncommonly successful in war, and will gain much by the patronage of men in power.

If ☉be significator, it confers great bravery, and a high spirit; he rises to grandeur by means of his courage and invincible military talents.

♂ ✶ *or* △ ♇

If ♂ be significator, it causes lewdness and dissipation; his disposition is not radically bad, but he is extremely thoughtless and improvident; he may gain by females, for he seems to possess a fascinating influence, which he never fails to exert to the utmost with the female sex.

If ♇ be significator, he is handsome, but proud, rash, and inconsiderate; and neither remarkable for prudence nor principle.

♂ ✶ *or* △ ☿

If ♂ be significator, this aspect gives great acuteness, penetration, and learning; the querent, however, is crafty, rather hasty, and extremely confident.

If ☿be significator, he possesses great courage, is very ingenious, in any mechanical trade, a good engraver or mathematician, and will succeed in any thing that requires presence of mind, acuteness, and ready wit.

If ☿receive any aspect of ♅, he is extremely fitted to become a good astrologer, especially if ☽assist ☿.

♂ ✶ *or* △ ☽

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If ♂ be significator, it makes one restless and changeable, servile and talkative; he travels much, and receives much assistance from females.

If ☽be significator, he is very passionate and changeable, with a high spirit and good abilities.

☉✶ *or* △ ☽

If ☉be significator, it confers riches and honour; the querent is fortunate with women, and is much respected by the multitude.

If ☽be significator, he is proud and aspiring; he is generally successful, but his fortune is not permanent, unless both ☉and ☽be in fixed signs.

♀ ✶ *or* △ ☿

If ♀ be significator, this aspect gives ingenuity subtlety, and good nature.

If ☿be significator, the querent possesses a refined and accomplished mind; he is neat in his person, and elegant in his manners; a lover of music and the fine arts in general.

♀ ✶ *or* △ ☽

If ♀ be significator, it is a very fortunate aspect; it shews a person who is much assisted by female friends; and one who, though unstable, often obtains considerable property.

If ☽be significator, the querent is gentle, obliging, amiable, and genteel in his manners, and is much admired by females; whose condition in life depends on the strength or debility of ♀.

☿✶ *or* △ ☽

If ☿be significator, the person signified is witty, ingenious, subtle, easily learning any thing to which he applies, and frequently acquiring many sciences without any

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assistance. He is somewhat reserved, and a little melancholy, but, from his extensive knowledge, he is always a useful and sometimes a pleasant companion.

If ☽be significator, this is the most favourable aspect for learning or scientific speculation.

The Effects Of The □ Or ☍ Aspects Between The Significators

♄□ *or* ☍♃

If ♄be significator, it shews much trouble by lawyers or the clergy,

If ♃be significator, he is always wretched and miserable idle, unfortunate, and beggarly.

♄□ *or* ☍♂

If ♄be significator, it is the aspect of cruelty and murder, and the person so signified is extremely unfortunate; he generally lives a most dejected life, and dies a violent death.

If ♂ be significator, the person shewn by him is very malicious, treacherous, and blood-thirsty; one delighting in the most evil deeds, yet very cowardly, sly, and much addicted to suicide and secret revenge; of a cruel complexion: in short, such a character as Don Miguel of Portugal.

♄□ *or* ☍☉

If ♄be significator, it is the aspect of infamy and contempt; the person is prodigal, ambitious, overbearing, hating control, very disagreeable in his manners, extremely unfortunate, subject to the frowns of persons in power, and often meets a violent death.

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If ☉be significator, the person is cowardly, spiteful, treacherous, malicious, unfeeling, covetous, repining, always despising any thing of kindness and humanity; one who generally leads a life of wretchedness, and frequently meets with a bad end, and sometimes dies in prison.

♄☐ *or* ♂☠

If ♄be significator, it shews dissipation, and the person leads a most detestable life, connected with the lowest order of prostitutes, by whom he is eventually brought to ruin and disgrace.

If ☠ be significator, the person is generally of an evil complexion, and not very handsome; very sly, artful, full of mischief, and much addicted to dissipation, though not suspected; mostly unfortunate.

♄☐ *or* ♂☿

If ♄be significator, it indicates a thief, cheat, or swindler; a low, cunning fellow, sly, envious, treacherous, and malicious, one who is always planning some scheme to deceive his most intimate friends; generally forming a bad opinion of every one, and not at all particular as to speaking the truth.

If ☿be significator, the person is very artful, always involved in strife and contention, and much given to vilify the character of others, by whom he is tormented with lawsuits; it also indicates pettifogging attornies, who very seldom act honestly towards their clients.

♄☐ *or* ♂☽

If ♄be significator, it shews a wandering, unsettled and changeable person, not of a genteel form, but one who is down-looking, and inclined to stoop forward; always very

fretful, and appearing full of trouble; not a good disposition, nor to be depended on. He seldom attains any high situation, but, if he does, he soon falls into disgrace again.

If ☽be significator, (*which in some measure she always is of the* QUERENT), the person is extremely unfortunate, always in trouble with the lower order of mankind, from whom he receives many injuries; he is mean, cowardly, and very dejected; is rather unhealthy, seldom living a long life, and generally dying a miserable death.

♃☐ *or* ♂☌

If ♃be significator, it denotes violence, ingratitude, a furious temper, and danger of death by malignant fevers.

If ☌ be significator, it shews pride, ingratitude, insolence, and the hatred of the clergy on account of theological opinions.

♃☐ *or* ♂☉

If ♃be significator, it gives arrogance, prodigality, and much vanity, with a great desire to be distinguished, which is but very rarely gratified.

If ☽be significator, the person represented wastes his property by riotous living and all kinds of extravagance.

♃☐ *or* ♂♇

If ♃be significator, it shews extravagance, dissipation, and all kinds of debauchery and intemperance.

If ♇ be significator, the person has many enemies among the clergy, and the legal profession, magistrates, &c., and he is equally void of virtue and prudence.

♃☐ *or* ♂☿

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If ♄be significator, it gives trouble, contention, perplexities, lawsuits, and, in consequence, indigence.

If ☿be significator, the person is frequently persecuted for his singular religious opinions; his understanding is weak, and he is often involved in strife and contention.

♄☐ *or* ☌☽

If ♄be significator, it shews one of many words, though of poor abilities; he is weak and foolish, and, if in a public capacity, is execrated by the multitude.

If the ☽he significator. he is injured by faithless friends and deceitful relatives: and his property is impoverished by hypocritical fanatics.

♂ ☐ *or* ☌☉

If ♂ be significator, it denotes a man of great ambition and violence; but his fortune is too evil to allow him to succeed.

If the ☉be significator, he is restrained by no principle of honour or gratitude; his affairs are always deranged, and he makes use of the most violent means to retrieve them. Such a one frequently becomes a footpad, murderer, or house-weaker, and is either killed in some contest, or falls a victim to the laws of his country.

♂ ☐ *or* ☌♀

If ♂ be significator, these aspects cause lust, excess, prodigality, disease, and injury by loose women, and complete waste of fortune.

If ♀ be significator, he is very treacherous, mischievous, base, and inconstant; or if it be a female, she is a prostitute, or very shameless.

♂ ☐ *or* ☌☿

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If ♂ be significator, it shews one of some ability, but his talents are applied to the most dishonourable purposes.

If ☿be significator, it denotes a thief or assassin; one whose most solemn protestations are not to be believed; who will desert his benefactors at their utmost need: he is violent, furious, contentious, and despised by every one for his in-famous life.

♂ ☐ *or* ☌☽

If ♂ be significator, the querent described by him is a fit companion for the lowest and most unprincipled of mankind; he is very unfortunate, and is probably a wandering vagabond, who travels over the earth without a friend or a home.

If ☽be significator, he is excessively abusive, malicious, and treacherous. He may travel into foreign countries as a sailor or soldier, amidst innumerable dangers and hardships, and die by pestilence, dysentery, or the sword.

☉☐ *or* ☌☽

If the ☉be significator, the person suffers losses, trouble, and much anxiety.

If ☽be significator, he is obstinate and quarrelsome; he is exceedingly ambitious and prodigal; and is sometimes marked in the face, or his eyes are affected: the latter is especially the case if ☉be afflicted by ♂, or either ☉or ☽are with the *nebulous* stars.

💀 ☐ *or* ☌☽

If 💀 be significator, it shews a changeable, unsettled life, great troubles in marriage, and much ill-fortune.

If the ☽be significator, it shews a dissolute, extravagant life, attended with indigence and poverty, and much trouble from females.

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☿□ *or* ☍☽

If ☿significator, it no doubt gives some abilities, but such persons are too unsettled to apply very closely to any subject; they are continually shifting their situations, (especially if ☿be in a moveable sign), nor are they very sincere in their professions of friendship, nor very scrupulous in the method by which they may attain their ends.

If ☽be significator, they have a defect in their utterance, have but little ability, except a kind of low cunning, which they apply to dishonest purposes. But as ☿is acted on by every planet having an aspect to him, it will be necessary to observe each aspect, and allow for its influence; for if ☿have a △ of ♃, the □of ☿to ☽will not be near se evil, though the person will be far from sensible, notwithstanding that they are tolerably honest and well-meaning.

OBSERVATION.--The student must always remember, that the true character and condition of the person signified can only be correctly learned by noticing all the aspects the significator may receive, as well as observing the nature of the sign and house it is in, and the degree of strength or weakness it possesses, as well as those planets which aspect it. Thus, if the significator be ♂, and he receive the ☍of ☉, yet if ☉be weak, and ♂ have also a △ of ♃, this benefic planet being strong, he may judge that the querent will suffer by the evil influence of ☉, by receiving a severe wound in a duel, or in honourable warfare; whereas if, instead of the △ of ♃, the □of ☿occurred, there would be little doubt that he would be killed by police officers, or die by the hand of the public executioner--the latter especially. if ☉was in the 10th house.

List Of Fixed Stars Which May Be Considered In Horary Questions; With Their Approximate Longitude, Jan. 1, 1835

These are the principal fixed stars, near the ecliptic, to which only the planets can approach. If the student require the places of the stars for the purpose of bringing them to the midheaven or ascendant in a nativity, he may learn their right ascension and declination in the Nautical Almanac for each year, and he may readily calculate their, longitudes and latitudes therefrom by the rules we have given.

N.B. The longitudes increase about 50" ⅓ each year; the latitudes do not vary.

Ram's following Horn:

LONGITUDE - ♉ 5° 21′

LATITUDE - 9° 57′ N.

NATURE - ♄ ♂

MAGNITUDE – SECOND

The Pleiades:

LONGITUDE - ♉ 26 55

LATITUDE - 4 31 N.

NATURE - ♂ ☽

MAGNITUDE – FIFTH

The Brightest of the Seven Stars:

LONGITUDE - ♉ 27 50

LATITUDE - 4 2 N.

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NATURE - ♂ ☽

MAGNITUDE – THIRD

***Occulus Taurus*, or the Bull's North Eye:**

LONGITUDE - ♊ 6 11

LATITUDE - 2 36 S.

NATURE - ♇

MAGNITUDE – THIRD

***Aldebaran*, or the Bull's South Eye:**

LONGITUDE - ♊ 7 31

LATITUDE - 5 29 S.

NATURE - ♂

MAGNITUDE – FIRST

The Bull's North Horn:

LONGITUDE - ♊ 20 17

LATITUDE - 5 22 N.

NATURE - ♂

MAGNITUDE – SECOND

Bright Foot of Gemini:

LONGITUDE - ♋ 6 46

LATITUDE - 6 48 S.

NATURE - ☿ ♇

MAGNITUDE – SECOND

Castor:

LONGITUDE - ♋ 17 48

LATITUDE - 10 4 N.

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NATURE - ♂ ♀ ♄

MAGNITUDE – FIRST

Pollux:

LONGITUDE - ♋ 20 59

LATITUDE - 6 40 N.

NATURE - ♂

MAGNITUDE – SECOND

North Assellus:

LONGITUDE - ♌ 4 45

LATITUDE - 3 10 N.

NATURE - ♂ ☉

MAGNITUDE – FOURTH

***Præspe*, or the Claw of the Crab:**

LONGITUDE - ♌ 5 0

LATITUDE - 1 14 N.

NATURE - ♂ ☽

MAGNITUDE – NEBULOUS

South Assellus:

LONGITUDE - ♌ 6 26

LATITUDE - 0 4 N.

NATURE - ♂ ☉

MAGNITUDE – FOURTH

Hydra's Heart:

LONGITUDE - ♌ 19 43

LATITUDE - 7 32 S.

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NATURE - ♄ ♇

MAGNITUDE – SECOND

***Cor* ♌, the Lion's Heart:**

LONGITUDE - ♌ 27 33

LATITUDE - 0 27 N.

NATURE - ♂

MAGNITUDE – FIRST

Vindemiatrix:

LONGITUDE - ♍ 7 38

LATITUDE - 10 15 S.

NATURE - ♄ ♇ ☿

MAGNITUDE – THIRD

***Arista*, the Virgin's Spike:**

LONGITUDE - ♎ 21 33

LATITUDE - 2 2 S.

NATURE - ♇ ♂

MAGNITUDE – FIRST

South Scale:

LONGITUDE - ♏ 12 48

LATITUDE - 0 22 N.

NATURE - ♄ ♇

MAGNITUDE – SECOND

North Scale:

LONGITUDE - ♏ 17 0

LATITUDE - 8 46 N.

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NATURE - ♃ ♂

MAGNITUDE – SECOND

Frons Scorpio:

LONGITUDE - ♐ 0 54

LATITUDE - 1 2 N.

NATURE - ♄ ♇

MAGNITUDE – SECOND

***Antares*, or the Scorpion's Heart:**

LONGITUDE - ♐ 7 29

LATITUDE - 4 32 S.

NATURE - ☿ ♂

MAGNITUDE – FIRST

Right Knee of *Ophiucus:*

LONGITUDE - ♐ 15 41

LATITUDE - 7 18 N.

NATURE - ♄ ♇

MAGNITUDE – THIRD

Capricorn's Tail:

LONGITUDE - ♒ 21 15

LATITUDE - 2 33 S

NATURE - ♄

MAGNITUDE – THIRD

Scheat Pegasi:

LONGITUDE - ♓ 26 29

LATITUDE - 1 7 N.

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NATURE - ♄

MAGNITUDE – SECOND

Rules to find the Zodiacal Latitude and Longitude of a Fixed Star, Comet, Planet, or the ⊕, &c. from the Right Ascension and Declination.

1st. If the right ascension be less than 180°, it is *north*; and if it be more than 180°, it is *south*.

2d. To the logarithm *co-tangent* of the declination add the logarithm *sine* of the right ascension, measured from ♈or ♎; but if measured from ♋or ♑, the logarithm *co-sine*: the sum (minus 10 in the Index), will be the *log. tangent* of the angle A.

3d. If the right ascension and declination be both *north*, or both *south*, add 23° 28′ to angle A, and it will give angle B.

4th. If the right ascension and declination be one *north* and the other *south*, the difference between 23° 28′ and angle A will give angle B.

Note.--If angle B exceed 90°, the latitude will be of the contrary name to the declination; but if angle B be less than 90°, the latitude will be of the same name as the declination.

To find the Longitude.

To the arithmetical comp. of the log. *sine* of angle A, and the log. *sine* of angle B, add the log. *tang*. of R.A. from ♈or ♎, (or the log. *co-tang* of R.A. from ♋or ♑). The sum will be the log. *tang*. of the longitude from ♈or ♎, or the log. *co-tang*. of the longitude from ♋or ♑.

To find the Latitude.

To the arithmetical comp. of the log. *co-sine* of angle A, and the log. *co-sine* of angle B, add the log. *sine* of the declination. The sum will be the log. *sine* of the latitude.

N.B. The arithmetical complement of a logarithm is found by subtracting it from 10.00000

Example. The log. sine of 13° 10′ is

9.35752

0.64248.

or it may be found with equal ease, by taking each figure (beginning at the left hand or index), from 9, except the last or right-hand figure, which must be taken from 10.

Thus: if from 9.99990

we take 9.35752

It gives 0.64248

the object of this being to perform each problem by addition, in lieu of the lengthy process otherwise required.

EXAMPLE.--Required the zodiacal longitude and latitude or Halley's comet, at noon, on the 18th October, 1835, Greenwich mean time?

Comet's right ascension, 16^h 25.31 equal in degrees to 246° 19′, which, being more than 180°, is *south*. The declination is 0° 35′ *north*.

Co-tangent dec. 0° 35 = 11.99219

Sine R.A. from ♎ 66 19 = 9.96179

Tang. angle A = 89 22 = 11.95398

From angle A take - 23 28

It gives angle B - 65 54

Then for the Longitude.

To the *sine* angle A (arith. comp.) - 0.00003

Add the *sine* angle B - 9.96039

And Tang. R. A. from ♎ - 66° 19′ = 10.35791

Tang. longitude from ♎ - 64 20 = 10.31833

Take the long. of ♎ and ♏ from this - 60 0

It leaves - ♐ 4 20, the longitude.

Then for the Latitude.

To the log. co-sine angle A (arith. comp.) - 1.95650

Add the log. co-sine angle B - 9.61101

And log. sine of the dec - 8.00779

It gives the log. sine of the latitude 22° 6′ = 9.57530

As angle B is less than 90°, the latitude is of the same name as the declination; which being north, the latitude is north also.

Hence the comet will be, at mean noon, Greenwich time, on the 18th of October, 1835, in; 4° 20′, with 22° 6 north latitude.

Explanation Of Terms Used In This Work

Abscission.--See "Frustration."

Affliction.--A planet, or the cusp of a house, being in evil aspect to any planet, or ☌to a malefic.

Angles.--The four houses which commence at the points where the ☉rises, culminates, sets, and arrives at mid-night; viz. the east, south, west, and north.

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Application.--The approaching of one planet to another, or to the cusp of any house, either by ☌or any aspect.

Ascendant.--The eastern horizon, or the cusp of that house which represents the party; as the cusp of the 5th is the ascendant for a child of the querent.

Aspect.--The being placed at certain distances from a planet, or the cusp of a house: as, if ♄be 60 degrees from ☽then they are both said to be in *sextile* aspect to each other. They are found to agree exactly with *the angles of regular polygons which may be inscribed in a circle*. An elucidation of this property of all astrological aspects may be seen in the "*Grammar of Astrology*."

Barren Signs.--♊, ♌, and ♍.

Benefics.--The two planets ♃and ♀.

Bestial Signs.--♈, ♉, ♌, ♐(the first half excepted), and ♑.

Besieged.--A planet being enclosed between two others.

Bicorporeal.--See "Double Bodied."

Cadent.--Falling from an angle: these are the 3d, 6th, 9th, and 12th houses.

Cazimi.--The heart of ☉, or being within 17 minutes of the exact longitude of ☉; which is considered a strong position, but, we think, erroneously.

Collection of Light.--When a planet receives the aspects of any two others which are not themselves in aspect. It denotes that the affair will be forwarded by a third person, described by that planet; but not unless they both receive him in some of their dignities.

Combustion.--The being within 8° 30′ of the ☉, which is said to burn up those planets near him, so that they lose their power. It is always an evil testimony.

Common Signs.--♊, ♍, ♐, and ♓.

Conjunction.--Two planets being in the same longitude. If they be exactly in the same degree and minute, it is a partile conjunction, and very powerful; if within the half of the sum of their two orbs, it is a platic conjunction, and less powerful.

Culminate.--To arrive at the midheaven.

Cusp.--The beginning of any house.

Day House.--That house ruled by any planet by day; as ♒is the day-house of ♄; ♐of ♃, &c. if the question be asked by day, or while ☉is above the horizon, and it be required to know what house ♄rules, look for ♒; and wherever it may be found, that is the house of ♄.

Debilities.--See "Dignities."

Declination.--The distance any heavenly body is from the equator.

Decreasing in Light.--When any planet is past the ☍of ☉, it decreases in light; it is a testimony of weakness.

Decumbiture.--A lying down; the figure erected for the time of any person being first taken ill, and taking to their bed.

Degree.--The 30th part of a sign in the zodiac; or the 360th part of any circle.

Descendant.--The western horizon; or cusp of the 7th house.

Detriment.--The sign opposite the house of any planet; as ♂ in ♎is in his detriment. It is a sign of weakness, distress, &c.

Dignities.--These are either essential or accidental. The former are when any planet is in its own house, exaltation, triplicity, term or face; the latter are, when any planet is in an

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angle, and well aspected, not afflicted, swift in motion, increasing in light, &c. The reverse of dignities are debilities.

Direct.--When any planet moves on in the regular order of the signs, from ♈towards ♉, &c.

Direction.--The calculating the arc between two heavenly bodies, &c. It is a term chiefly used in nativities.

Dispose, *Dispositor*.--A planet disposes of any other which may be found in its essential dignities. Thus, if ☉be in ♈, the house of ♂, then ♂ disposes of ☉, and is said to rule, receive, or govern him. When the dispositor of the planet signifying the thing asked after is himself disposed by the lord of the ascendant, it is a good sign. To dispose by house is the most powerful testimony; then by exaltation, then triplicity, then term, and lastly, face, which is a very weak reception.

Double-bodied Signs.--♊, ♐, ♓.

Dragon's Head.--It is thus marked, ☊, and is the north node of ☽, or where she crosses the ecliptic into north latitude. It is always a good symbol, denoting success, a good disposition, &c.

Dragon's Tail.--It is thus marked, ☋, and is where the ☽crosses the ecliptic into south latitude, or her south node. It is very evil, and in all things the reverse of ☊; it diminishes the power of good, and increases that of evil planets.

Earthy Signs.--♉, ♍, and ♑, which form the earthy triplicity.

Ephemeris.--An almanack of the planets' places. The best is White's, until the year 1834, when it ceased to give the longitudes for each day. For horary questions, the best now published is Partridge's Almanack.

Exaltation.--An essential dignity, next in power to that of house.

Face.--The weakest of all the essential dignities.

Fall.--A planet is in its fall when in the sign opposite to its exaltation. It chews a person in a weak and hopeless state, unless the planet be well aspected.

Familiarity.--Any kind of aspect or reception.

Feminine Signs.--These are all the even signs, reckoning from Aries; as the 2d, 4th, 6th, 8th, &c.

Fiery Signs, or *Fiery Triplicity*.--♈, ♌, ♐.

Figure.--The diagram which represents the heavens at any time: it is also called a scheme or horoscope.

Fortunes.--♃, and ♀; and the ☉, ☽, and ☿, if aspecting them, and not afflicted, are considered fortunate planets.

Fruitful Signs.--♋, ♏, and ♓.

Frustration.--The cutting off or preventing any thing shewn by one aspect by means of another. Thus, if ♀, lady of the ascendant, were hastening to the △ of ♂, lord of the 7th, in a question of marriage, it might denote that the match would take place; but if ☿were to form an ☍of ♂ before ♀ reached her △ of that planet, it would be a frustration; and would shew that the hopes of the querent would be cut off; and if ☿were lord of the 12th, it might denote that it would be done by a private enemy.

Horary Questions.--So named from the Latin word *hora*, an hour, because the time of their being asked is noted, and the figure of the heavens for that time is taken to judge the result. The word *hora* appears to be derived from the Egyptian name for the Sun, which Herodotus informs us was *Horus* or *Orus*; the Hebrew *or*, lux, light, or day,

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and *oriens*, eastern, all appear to have had the same origin. The Budhists call the Sun *Hiru*, which, with its Braminical name also, appears equally to have been derived from Egypt, the first cradle of astrology.

Horoscope.--The ascendant is sometimes so called; but it is more generally a term for the figure of the heavens used by astrologers for predicting by nativities, mundane astrology, and horary questions.

Houses.--The Twelve divisions or compartments into which the circle of the heavens is divided; also the signs in which any planet is said to have most influence.

Human Signs.--♊, ♍, ♒, and the first half of ♐. Any person's significator therein, shews them to be of a humane disposition.

Impedited.--This signifies being afflicted by evil stars. The ☽is impedited in the highest degree when in ♂with ☉.

Joined to.--Being in any aspect.

Increasing in Light.--When any planet is leaving ☉, and is not yet arrived at the ☍; after which it decreases in light. The former is a good, the latter an evil testimony, especially as regards the ☽.

Increasing in Motion.--When any planet moves faster than it did on the preceding day.

Inferior Planets.--☿, ☿, and ☽; so called because their orbit is inferior to that of the earth.

Infortunes.--♅, ♄, and ♂; also ☿when he is much afflicted.

Intercepted.--A sign which is found between the cusps of two houses, and not on either of them.

Latitude.--The distance any star, &c., is north or south of the ecliptic. The ☉never has any latitude. Latitude on the earth is the distance any place is north or south of the equator.

Lights.--The ☉and ☽.

Light of Time.--The ☉by day and the ☽by night.

Longitude.--The distance any star, &c., is from the first point of ♈, or beginning of the zodiac.

Lord.--That planet whose house is occupied by any other, is said to be the lord or ruler of that other; and if his sign be on the cusp of any house, he is called the lord of that house. Thus, if ♈ascend in any figure, ♂, who rules that sign, is the lord of the ascendant.

Masculine Signs.--They are the odd signs, viz. the 1st, 3d, 5th, &c.

Medium Cæli.--The midheaven.

Meridian.--The midheaven, or place where ☉is at noon. The opposite point, or where ☉is at midnight, the cusp of the 4th house, is the meridian under the earth.

Moveable Signs.--♈, ♋, ♎, and ♑.

Night Houses.--Those signs in which the planets are stronger by night than by day. See "Day Houses."

Nodes.--The points where any planet crosses the ecliptic it its path of latitude.

Occidental.--See "Oriental."

Order of the Houses.--They rank in power as follows:--1st, 10th, 7th, 4th, 11th, 5th, 9th, 3d, 2d, 8th, 6th, 12th.

Orb.--That distance round a planet to which its influence more particularly extends. The orb of the cusp of any house, a fixed star, or ⊕, is five degrees.

Oriental.--Planets found between the fourth house and the midheaven, rising, are in the eastern half of the figure, and said to be oriental. When they have passed the midheaven, and until they reach the 4th again, they are occidental. In nativities, the ☉and ☽are oriental from the 1st to the 10th, and from the 7th to the 4th, and occidental in the opposite quarters.

Peregrine.--Having no essential dignity whatever. A planet is not reckoned peregrine that is in mutual reception with any other.

Platic.--Any aspect which is not partile or exact, but only within orbs, or rather within the moiety of the two planets' orbs. As if ♄be in ♈10°, and ☽in ♎20°, the ☽is still in ☌to ♄; because the half of their joint orbs being 10° 30′, she still wants 30′ of being clear of his ☌.

Querent.--The person who queries or inquires.

Quesited.--The person or thing inquired about.

Radical.--That which belongs to the radix, or root; fit to be judged.

Reception.--The being received by any planet is being in that planet's essential dignities; it is a good testimony when mutual. See "Dispose."

Refranation.--When two planets are coming to any aspect, and one falls retrograde before the aspect is complete, it denotes that the matter will wholly fail.

Retrograde.--When any planet is decreasing in longitude. It is a very great debility.

Separation.--When any aspect is past, but is yet within orbs, the planets are said to separate from each other. It denotes that the influence is passing away.

Significator.--The planet which is lord of the house which rules the matter inquired after, is the significator of the quesited; the lord of' the ascendant is the general significator of the querent. The ☽is in general his consignificator.

Signs of Long Ascension.--♋, ♌, ♍, ♎, ♏, ♑. A ✶in them is said to have the effect of a □, and a □that of a △.

Signs of Short Ascension.--♑, ♒, ♓, ♈, ♉, ♊. A △ is said to have the effect of a □, and a □that of a ✶.

Swift in Motion.--When a planet moves faster than its mean motion.

Table of Houses.--These are necessary to erect a figure of the heavens.[125]

Term.--An essential dignity. (See page 72.)

Testimony.--Having any aspect or dignity, &c., or being in any way in operation in the figure as regards the question asked.

Translation of Light.--The conveying the influence of one planet to another, by separating from the aspect of one and going to the aspect of the other. It is a very powerful testimony.

Triplicity.--An essential dignity. The zodiac is divided into four trigons, or triplicities; the fiery, ♈, ♌, ♐; the earthy, ♉, ♍, ♑; the airy, ♊, ♎, ♒; and the watery, ♋, ♏, and ♓; agreeing with the four elements into which the ancients divided the whole of the natural world.

Void of Course.--Forming no aspect in the sign it is in. When ☽is so, it denotes in general no success in the question.

Watery Signs.--♋, ♏, and ♓.

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Watery Triplicity.--♋, ♏, and ♓.

Zodiac.--A belt which surrounds the earth, about eighteen degrees broad, in which the Sun and Planets continually move.

THE END

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Footnotes

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[1] Retrospective Review, vol. ii. p. 51.

[2] See p. 101 of Lilly's History of his Life and Times.

[3] I have retained the exact orthography of this epistle, which is a curious and interesting remnant of our author's day. It was penned in 1547.--ED.

[4] The Sun and Moon are considered as planets in all astrological matters.

[5] These nodes are the points in the ecliptic where the Moon crosses from north into south latitude, or the reverse, which occurs twice each month.

[6] This is found by taking its distance from the 10th 5E° 0′ from ### of its semi-arc 59° 22 .

[7] In proof of this, it is evident that in the Duke's nativity ☽came to ☌of ⊕ in November 1834, when he was appointed to the ministry. Thus ⊕ is 58° from the meridian, and ☽124° 29′; the difference is 66° 29′; which arc of direction, added to the right ascension

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of ☉at his birth 39° 21′, gives 105° 50′, the right asc. of ♋14° 34′. The ☉arrived at this point at 1 P.M. 6th July 1769, or 65 days 13 hours after birth, which, the Placidian measure of a year for a day, gives 65 years 61 months, the Duke's age when the event occurred.--N.B. The ascendant came to ☌of ☉at the same time, which, by referring to our author's rules for the effects of directions, will be seen to cause such eminent preferment. The semi-arc of ☉is 68° 13′, ☉dist from 4th house 1° 44′; the difference is 66° 29′, the arc of direction.

[8] See the figure--Question. "A ship at sea, if lost?"

[9] Ephemeris signifies a journal or Almanac, in which the places of the planets, &c. for each day are registered. For all years before 1834, *White's* is the best.

[10] This time must first be corrected for the error of the clock, by, adding what the clock is too slow, or subtracting what it is too fast.

[11] The term *accidents* here signifies the events of life generally.

[12] See Fig 1.

[13] This is verified in the nativity of Lord Brougham, who was born with ♄ascending in ♏; he has a very great natural defect in the face, a nervous catching of the muscles of the mouth. &c.

[14] Lord Brougham, who is one of the nest orators of the age, was born with ☿just rising.

[15] ☽in this house, if in good aspect to ♃, gives the native wealth. The Duke of Wellington had ☽in this house in △ to ♃in the 10th.

[16] This alludes to questions of sieges, which were too frequent in the land in the author's time.

[17] This alludes to questions regarding sickness. and by no means to nativities.

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[18] We always find that ♄, ♂, or ☿, in this house are *causes* of ill-fortune in marriage, or the married state, in nativities, let them be aspected how they will; and in questions, we have no opinion of them, though ever so strongly dignified. The Duke of Wellington had both ♄and ♂ in the 7th, and was unfortunate in marriage.

[19] This alludes to the significator of the querent being placed in the 9th house.

[20] This merely alludes to horary questions, and can have no kind of *influence* this way, these things being at the most *symbols* of a good or bad man; for in nativities the mind is influenced by the Moon and Mercury only. The error of confounding these two branches of the science, nativities, in which the planets are *causes* (under God) of events, and horary questions, in which they are only *signs* of the events, has been the chief means of bringing this sublime science into disrepute. This error appears to have arisen from the low state and condition of astronomy in the middle ages, when, even as late as the days of Charles II., Dr. Goad, his physician, assures us that the astronomers could not calculate an opposition of the planets ☋and ♄nearer than a week. How, then, can it be expected that the judgments of astrologers should have always been correct, when the very data on which they depended were often erroneous?

[21] This was true, as far as the author knew; the planet Herschel not having been then discovered.

[22] For the terms, &c., see the table of Essential Dignities.

[23] By these descriptions is meant, that persons signified in horary questions by this planet are of such a character; and if he influence the native by being in the ascendant at the time of birth, it applies also in nativities.

[24] This implies, that the person inquired about in a horary question, if signified by ☋, frequents such places.

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[25] We have no opinion of the rule of the planets over different countries: but in mundane astrology the signs which rule them must be observed.

[26] These extremely evil qualities obtain only when the ☽and ☿are also very much afflicted.

[27] ♂ coming to ill aspect of the ascendant by direction early in nativities generally causes either smallpox, measles, or scarlet fever; but if the nativity denote it, he may give hurts, wounds, fevers, &c.

[28] To this may be added, cutlers' shops, and places where iron is manufactured in any manner, armouries, &c.

[29] In nativities the ☉and ☽are oriental between the 1st and 10th houses, and in the opposite quarter of the figure; they are occidental between the 10th and 7th houses, and in the opposite quarter: but in horary questions they are oriental between the 4th and 10th, and occidental after leaving the 10th, until they reach the 4th; oriental when rising, and occidental when setting.

[30] It is a very remarkable fact, that this period is the *sothic* or *canicular* year of the Egyptians; whence it is pretty evident that these astrological doctrines came originally from that people, and are, in fact, of the very highest antiquity.

[31] This signifies a pale or wan complexion, yet with a dark hue.

[32] Those who have Venus strong, either in their nativities, or as their significators in questions, invariably have dimples either in the cheek or chin.

[33] These observations are retained from respect to our author; but we must repeat, that it is ♉and ♎the houses of ♀, which govern these.

[34] This applies to aspects also; but, of course, only in horary questions.

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[35] This more especially if with or in good aspect to *Herschel*.

[36] These names prove the various mythological fables to have had their origin in the ancient astrology of the Egyptians.

[37] Generally, all persons who are connected with liquids in their occupation.

[38] These points are of no consequence in nativities, except as regards the Moon, who brings benefits when she reaches the ☊in the zodiac by directional motion, and evil when she reaches the ☋.

[39] This downward look, keeping the eyes on the earth, is one of the most remarkable circumstances in the character of the persons described by Saturn, or who have him in the ascendant at birth.

[40] These evil qualities when Saturn is weak and afflicted.

[41] We have always observed that Venus causes *dimples* and a smiling face.

[42] We have given these descriptions in addition to the former, as it is most material for the student to be able to describe the person inquired of well; as, by that means, the character being known, his conduct may be more accurately foreseen.

[43] Like a fish just taken out of the water.

[44] In all cases, I think the hair will be found to be of the colour given by the planet near to or aspecting closely the degree ascending, or on the cusp of the house which signifies the party. I find that ♊more frequently gives brown hair in questions.--ZAD.

[45] There is little doubt that this disease took its name from the astrological fact, that the sign ♋rules the breast, in which it generally occurs. Persons born with this sign ascending have always some defect, scar, mark, or disease in the breast.--ZAD.

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[46] This term signifies, that if a person be born under or signified by this sign, or if they have ☽therein, and at all afflicted by the malefics, they will have less of humane feelings than when under any other sign, except the last half of ♐. They do not sympathize with other persons' sufferings, or feel compassion.

[47] The early part of the sign gives brown hair.

[48] If ♅ascend therein, the limbs will be long and the body taller.

[49] This remark of the author confirms our previous opinion, that the colour of the hair in questions depends on the ruler of the term ascending: in nativities, or the planets aspecting the ascendant, as well as the sign ascending.

[50] The Princess Charlotte of Wales was born with this sign ascending; it gives more beauty than any other sign except ♎.

[51] Eclipses in m cause great innovations in the state in England: comets plunge the nation into war. The greatest changes have occurred in the laws while ♅has been in ♒.

[52] This sign denotes standing water, as ♋does running water.

[53] I have generally found persons born under this sign have a very delicate skin, and often a white chalky appearance, and flabby.--ZAD.

[54] This implies, that you must judge by the sign on the house which rules the particular subject of inquiry; as if it be, where he may gain a good wife, look to the seventh house.

[55] These apply not to nativities where the angular position and good aspects received by a planet constitute its strength.--ZAD.

[56] This term signifies, like the *radix* or root, the figure of birth; for when a person asks his first question of an astrologer, it will generally be found that the same sign, and often the same degree, will ascend that ascended at his birth.

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[57] This means being in these dignities of that significator.

[58] The student will perceive, by this observation of the author, how false is the assertion, that astrology teaches or upholds fatality. On the contrary, it expressly teaches that the worst influence may be overcome by the use of reason, which, of course, implies by the assistance also of God's blessing, which both reason and revelation inform us we should pray for when we perceive any impending evil.--ZADKIEL.

[59] I should not myself choose the directions of the infortunes in any case.--ZADKIEL.

[60] This star has now advanced to about 27° 30′ of the sign Leo.

[61] I differ from the author on this point, and believe that the lord of the ascendant being in ♈, which rules the head, shewed them; it being a *masculine* sign, caused them to be on the right side; and, being *above the earth*, they were in front of the head, or in the face. The ☉being afflicted by the ♂of ♂, caused them to be scars or wounds: if he had been alone, they would have been merely *moles*.--ZADKIEL.

[62] The ☉in ♂with ♂ would render him very fiery, and at the same time very brave and fortunate, as a soldier.

[63] it was the *Lord Coventry*.

[64] I should certainly always do so.--ZAD.

[65] In all questions ☽signifies the people, where they are at all concerned.

[66] I should say also, by ♄being in the 4th house and retrograde, for such a position ever denotes a final catastrophe.

[67] the same if ⊕ receive evil rays approaching.

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[68] The nature of the planet casting the ray, also may be expected to shew the nature of the evil; ♂ shews robbers, &c., ♄elderly persons, ☿young persons and lawyers, ♅unlooked-for and uncommon events, ♀ females, ☉men in power, ♃clergymen and magistrates, ☽sailors, low people, mobs, &c. But note, that unless the benefit planets be lords of evil houses, their ill aspects do not import much evil. And if they be lords of good houses, or placed in good houses and strong, their good aspects denote benefits in the same manner; and in all cases ⊕ shews gain or loss, as it may be aspected; and ☊, with the chief significator, imports benefits, and ☋the reverse.

[69] PARTS *of* MAN'S BODY *ruled by the* TWELVE SIGNS.

♈ *Head and face*.
♉ *Neck and throat*.
♊ *Arms and shoulders*.
♋ *Breast and stomach*.
♌ *Heart and back*.
♍ *Bowels and belly*.

♎ *Reins and loins*.
♏ *Secret members*.
♐ *Hips and thighs*.
♑ *Knees and hams*.
♒ *Legs and ancles*.
♓ *Feet and toes*.

[70] If ♃give the mark, it will be bluish or purple; ♀ gives it yellow; ♄a pale lead colour; ☉olive or chesnut; and ☽a whitish hue, or partly of the colour of the planets she aspects. The infortunes ♄and ♂, especially when together, or in exact aspect, mark according to

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their position. If they be in the ascendant, a mole, &c. will be in the face; if in the 2d, on the neck; in the 3d, on the arms, &c.

And all these rules apply to the figure of birth, as well as horary figures; but *defects*, such as protrusion of the breast bone, or a humped back, &c. (to persons born with ♋or ♌rising), may sometimes be found in lieu of moles or scars. For example, her present majesty, having ♄in ♓, which rules the feet, and situated near the cusp of the 12th *house*, at her birth, she has a *weakness* in her feet. Had one testimony only existed, and ♄been in ♓elsewhere, she would have merely had a mole on her foot.

[71] We should always take the ascendant, &c. for the querent, and the 7th and its lord for the quesited. But if the figure be erected by an artist at his own suggestion, let the ascendant, &c. shew the absent person.

[72] The most difficult thing in all questions is to judge of time with accuracy. I should advise the young student to be cautious of giving any judgment on this head, unless where it is the chief point desired to be known. In this case, and if the figure be very radical, and *if the planet which is applying* to the other be taken, the following rule will hold good:

Each Degree gives

IN MOVEABLE SIGNS AND ANGLES DAYS

IN COMMON SIGNS AND ANGLES WEEKS.

IN FIXED SIGNS AND ANGLES MONTHS.

Succeedent houses give *weeks*, *months*, and *years*, as the sign is *moveable*, *common*, or *fixed*; and *cadent houses* give *months* in *moveable signs*, *years* in *common*, and an indefinite time in *fixed* signs.---ZAD.

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[73] We consider that our author has been rather brief on this point, for numerous occasions occur where the mind is desirous of knowing the result when events happen. If ☿ had been within orbs of ♂ opposition, that is, *half the distance of their united orbs*, or 7°; we should have judged loss of money by a party shewn by ☿, and her situation considered with the houses she governs. As, for example, ☿ ruling the 12th, some private female enemy, among the relations of the wife or husband. because ☿ is in the 3d from the 7th house. And as ♂ is ☍to ⊕, we should predict a loss by a servant (since ♂ rules the 6th); and as ⊕ is in the 8th, it might be by one who comes to char or go messages; if ⊕ had been in a watery sign, a washerwoman. But the general testimonies being good, we should say the evil will be but trifling. Experience will teach the student these points.

[74] If no planet be in the ascendant of the party, look to the lord of the ascendant for a description of his person, according to the sign it is in, and judge by that and the sign ascending; but if the lord of the ascendant be much *afflicted*, the ☽, according to the sign she is in, must be taken.

[75] This doctrine of the signs of long ascension, causing a ✶to be equal to a ☐, and a ☐to a △, and the reverse in signs of short ascension, can only be received in horary and mundane astrology; and not in nativities.

[76] We should, in this latter case, prefer looking to the Ephemeris for a day when ☿formed a △ of ♃for hearing news, and when ☿ and ### came to ☌for his return.

[77] When any planets are found in a house signifying anything, they may he taken as well as the lord of the house,

[78] Reception by house is the most powerful; then exaltation, triplicity,, and face: the latter is very weak.

[79] There appears a species of confusion in this arrangement, which is the reverse of the usual system, of allowing angles to produce events quicker than cadents. We should advise the student to be careful in his experiments before he adopt it.

[80] *Joys of the Planets*:

♒, ♄; ♐, ♃; ♏, ♂; ♎, ☿; ♍, ☿. These are not usually not noticed by modern astrologers.

[81] This star has now advanced to 22° ♎.

[82] Signs of long ascension, are ♋, ♌, ♍, ♎, ♏, ♐. Signs of short ascension, are ♑, ♒, ♓, ♈, ♉, ♊. In the former a ✶is taken for a ☐, and a ☐for a △; and in the latter, a ☐is taken for a ✶, and a △ for a ☐. We advise the student to reject these distinctions, which only tend to create confusion.

[83] The description of ☉in ♌, would herein answer the exact kind of persons who might injure the querent's property.

[84] This signifies within a distance of 12 degrees of ☉. Modern authors say 17 degrees.

[85] If the advice be intended for your benefit, yet it may not be well to follow it. This may be seen by the lord of the 4th, and planets therein; for if malefics be there, or the lord of the 4th afflict the lord of the ascendant, it will end ill: if good planets be there. it ends well.--ZAD.

[86] If the student erect a figure for 10h. 53m. A.M. Dec. 23d, 1834, he will find ♐15 on the 10th, and ☽in ♎0: 15 in the 7th, applying to ☐of ☉, lord of the 7th. We erected this figure on hearing a rumour of several persons being cruelly slaughtered by soldiers at Rathcormac, in Ireland, for the purpose of collecting tithes. The ☽being angular and afflicted, shewed that the *evil* report was true; and ☿being exactly on the cusp of the

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ascendant, ♒23: 30, was a similar testimony. was in ♐16: 35 on the cusp of the 10th, shewing discredit to the government, arising out of the transaction. The coroner's jury found a verdict of *wilful murder*.

[87] This method of electing times for application to individuals for any favour, or to gain any point, may be safely practised after any other horary question, as well as this particular one.--ZAD.

[88] Let the querent also attend to the places ruled by the sign in which the planet is; as London for ♊, Dublin for ♉, &c.

[89] Fruitful signs are the watery triplicity ♋, ♏, ♓.

[90] This is rather a difficult point to decide; and unless the querent have great anxiety on the subject, which in some cases may happen, we advise the student to avoid giving judgment, or at least till he has well satisfied himself, by experience, of the right method. We believe it will generally be found, that at the time of the birth the ☉is passing some aspect of the cusp of the 5th, or its lord.

[91] See the Table of the Parts in Man's Body the planets rule for each sign.

[92] If the illness be produced by an accident, then take the time at which it occurred.

[93] Our author adds, "or when first the *urine* was brought to him." This makes it evident that the water doctors, as they were termed, even until a very recent period, had recourse to astrology to ascertain the nature and result of their patients' diseases. We are quite sure, from long experience, that these may be accurately learned by the science; and we believe that many medical men call it to their aid even now. The day is coming when this will be generally the case.

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[94] In all cases where the ☽is afflicted by either ♄or ♂, we should regard the rules for that situation as of the chief importance; we have ever known them fail.

[95] For the diseases signified by the *signs*, see CHAPTER XV; and for those of the *planets*, see the nature, &c. of each, at page 35.

[96] ☿causes all uncommon and extraordinary complaints; or gives remarkable features to the sickness.

[97] We should say, if it be in ♋, where ☽disposes of ☉, it is not so evil.

[98] The student may rely that he will find these rules, when they apply, to be infallible.--ZADKIEL.

[99] These latter especially, if ♀ throw an ill aspect, or the lord of the 5th house.

[100] We can speak personally as to this effect. We were taken ill in the evening of the 1st March, 1829, when ☽was in ♑, 19°, and ♄in ♋28°, and we suffered extremely during the night, and had violent pains in the left side of the head, and sensations of noises, as of the working of the piston of a steam-engine. A fever ensued, which confined us to bed for three weeks, having caught cold after taking mercury. The direction in our nativity was M.C. ☌☉, who, being in ☌with ♂ at birth, partook of his ill qualities, and afflicted the ascendant by his mundane square.

[101] This till ☽is past ☍of her own place, when, if there be good aspects the sick is recoverable.

[102] Especially wet feet, damp linen, &c.

[103] Where various diseases are named, the student must look to other testimonies to ascertain the exact complaint.

[104] This will be seen by the Table at the end of this chapter.

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[105] This table is taken from the old Arab writers on astrology, who flourished many centuries back: they used many terms inconsistent with the modern nomenclature of diseases; but as the human frame is still the same, so are its diseases, though called by different names. Thus, *Mercury in Aquarius* is said to cause "wind in the blood," by which, we presume, was meant spasmodic action, arising from debility.

[106] We should judge that, if the planet dispose of ☉by house, this rule does not hold. We have no faith in the doctrine of Cazimi.

[107] This rule principally applies to cattle strayed.

[108] The human signs are ♊, ♍, and ♒, also the first half of ♐. If the significator of any person or ☽be in one of these signs, they are humane and civil in their manners.

[109] In this case ♋generally denotes pure or running water; ♏foul water, and filthy liquids, oils, dyes, &c.; and ♓standing waters, spirituous liquors, wines, &c.

[110] If a servant, take the lord of the 6th in all these eases.; and if the querent's child, the lord of the 5th, &c.

[111] We should pay more attention to the nature of the sign, as fiery, earthy, &c.; and judge as in the rules for things mislaid.

[112] These minute particulars may be found useful in many other questions. such as where fugitives, &c. are; and they might be of use in discovering criminals.

[113] This means, going faster than they were the previous day.

[114] ♄shews one of a pale, swarthy, dark complexion; hard, rough skin; hairy body; small, leering eyes; jaundiced look; lean, crooked, or ill made; beetle browed; thin beard; thick, negro lips; bow-legged, or one who knocks his knees or ancles one against the other, and shuffles in his gait. He has a down look, his eyes always on the earth; is seldom free

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from cough and bad breath. He is crafty, revengeful, and malicious; dirty, a great eater, covetous, and seldom rich.

♃denotes a full face, white and red mixed; full eyes; good make, light beard, but this depends chiefly on the sign; thick hair, good teeth, but some defect in the two front teeth; moderately curling hair. If in a watery sign, fat and plump; in an earthy sign, large make: in an airy sign, strong--a person who bears a good moral character.

♂ denotes a full face, red or sunburnt; a sharp, fierce countenance; eyes fiery and ferocious, with rather a yellow tinge; hair and beard reddish; but this depends on the sign, unless he be with fixed stars of his own nature, such as *Aldebaran*, *the Lion's Heart*, &c. In earthy signs it is a sad brown; in watery, lighter or flaxen; in airy, curling or crisping; in fiery, strong and wiry. He is strong, broad shouldered, proud, scornful, drunken, and debauched with a mark or scar, generally in the face.

☉denotes a round full face; sanguine complexion; short chin; curling hair; fair, comely, sometimes swarthy or bronzed; bold, ambitious, vain, slow of speech; outwardly decent, but secretly vicious and lascivious.

♀ gives a fair, round face; full or large eyes; red, plump lips, the lower larger than the upper; black eyelids, smooth brown hair; person well-shaped and handsome; rather short than tall; face pleasing, with smiles and dimples.

☿middling complexion; darkish hair, or a sad brown; long face; high forehead black or grey eyes; thin beard and whiskers, often hardly any; slender, small legs; one quick in walking, and full of talk and business.

☽a round face, more white than red; in watery signs, freckled; and if in ♋, and in no aspect to ♂ or ☉, very pale and white, or wan--a person generally short and full; and one who is dull and heavy, and also very vulgar and ill-mannered.

N.B. The above descriptions are partly taken from *Wilson's Astrological Dictionary*; a very useful work for the young student.

[115] We should rely much on her significator ☉being in ♂with ♃.

[116] We should rather consider that ☿in ♊aspecting the cusp of the 7th; and the ☽, the *man's* general significator, being in ♎and aspecting ♃, shewed his tallness. ♊and ♎are tall signs.

[117] The well-known instance of a military siege, the capture of the Castle of Antwerp, being so applicable to this question, and the time of its commencement by the opening of the trenches being so well authenticated, we are induced to offer to the student's notice a figure we erected for that time.

[118] If the fatal ♂or aspect fall in the term of ♃or ☠, or exactly in their ✶or △, there is much 'less fear of death.

[119] We do not agree with our author on this point; for unless the quesited has given his *consent* to the question, we think he should have the same significators as in any other question; the 7th, 5th. 3d, &c.

[120] The reason of this is, that ☠ in the house of ♌ shews persons given to pleasure.

[121] We have given this judgment at great length, as its complete fulfillment, by the re-establishment of the Episcopal church, being a matter of history, is a decisive proof of the truth of the science, and of its ability to decide the most important questions both public and private The student will readily perceive that the prediction of the downfall of the Presbyterian church, as far as regards England, is made according to the strictest rules of the doctrines laid down by our author.

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[122] This rule will answer the question of the re-election of any Member of Parliament for any place he has formerly represented; as well as the restoration of any minister, &c. to power, or the return of any individual to any office or employment.

[123] These rules are not found in our author.

[124] "The King had lain most part at York, or rambled into some other counties near adjacent, until August, and done little to any purpose. For the several counties were generally nothing inclinable to his purpose; in most whereof, and in every county he came in, he rather received petty affronts than support. Yet at last he came to Nottingham, and there set up his STANDARD, (with a full resolution for war), the 22d August, 1642, under this constellation; having some few horse with him, but in great expectation of more aid from the Welsh, &c., whom he thought most doted on monarchy."--*Monarchy or no Monarchy*, p. 112.

[125] A complete set for London and Liverpool, answering for all kingdom, follows the *Grammar of Astrology*.

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Book nine

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Astrology and Religion Among the Greeks and Romans

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Preface

It is the purpose of these lectures delivered under the auspices of the American Committee for Lectures on the History of Religions, to sum up the results of researches carried on by me for many years in the field of ancient astrology and astral religion. For some facts set forth here in a summary fashion, I can refer the reader interested in the details to a number of special articles published in various periodicals; the proof of other assertions will be given in a larger work that I hope at some future date to publish on this same general theme.

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My sincere thanks are due to Mr. J. B. Baker of Oxford who has carried out the task of translating these lectures in so satisfactory a manner; and I am also largely indebted to my friend, Mr. J. G. C. Anderson of Christ Church, who was kind enough to undertake the revision of the manuscript. I also owe some valuable corrections to Prof. Morris Jastrow, Jr., of the University of Pennsylvania, who, as Secretary of the American Committee, may be said to have called this book into existence, and to whom I take pleasure in dedicating the volume, as a mark of recognition of his own researches in the cognate field of Babylonian-Assyrian astrology.

FRANZ CUMONT

Brussels,
January, 1912

Announcement

The American Lectures on the History of Religions are delivered under the auspices of the American Committee for Lectures on the History of Religions. This Committee was organised in 1892, for the purpose of instituting "popular courses in the History of Religions, somewhat after the style of the Hibbert Lectures in England, to be delivered by the best scholars of Europe and this country, in various cities, such as Baltimore, Boston, Brooklyn, Chicago, New York, Philadelphia, and others."

The terms of association under which the Committee exists are as follows:

1.--The object of this Association shall be to provide courses of lectures on the history of religions, to be delivered in various cities.

2.--The Association shall be composed of delegates from the institutions agreeing to co-operate, with such additional members as may be chosen by these delegates.

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3.--These delegates--one from each institution, with the additional members selected--shall constitute themselves a Council under the name of the "American Committee for Lectures on the History of Religions."

4.--The Council shall elect out of its number a Chairman, a Secretary, and a Treasurer.

5.--All matters of local detail shall be left to the co-operating institution under whose auspices the lectures are to be delivered.

6.--A course of lectures on some religion, or phase of religion, from an historical point of view, or on a subject germane to the study of religions, shall be delivered annually, or at such intervals as may be found practicable, in the different cities represented by this Association.

7.--The Council (*a*) shall be charged with the selection of the lecturers, (*b*) shall have charge of the funds, (*c*) shall assign vii the time for the lectures in each city, and perform such other functions as may be necessary.

8.--Polemical subjects, as well as polemics in the treatment of subjects, shall be positively excluded.

9.--The lectures shall be delivered in the various cities between the months of September and June.

10.--The copyright of the lectures shall be the property of the Association.

11.--The compensation of the lecturer shall be fixed in each case by the Council.

12.--The lecturer shall be paid in instalments after each course, until he shall have received half of the entire compensation. Of the remaining half, one half shall be paid to him upon delivery of the manuscript, properly prepared for the press, and the second

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half on the publication of the volume, less a deduction for corrections made by the author in the proofs.

The Committee as now constituted is as follows:

Prof. Crawford H. Toy, Chairman, 7 Lowell St., Cambridge, Mass.; Rev. Dr. John P. Peters, Treasurer, 227 W. 99th St., New York City; Prof. Morris Jastrow, Jr., Secretary, 248 S. 23rd St., Philadelphia, Pa.; President Francis Brown, Union Theological Seminary, New York City; Prof. Richard Gottheil, Columbia University, New York City; Prof. Robert F. Harper, University of Chicago, Chicago, Ill.; Prof. Paul Haupt, Johns Hopkins University, Baltimore, Md.; Prof. F. W. Hooper, Brooklyn Institute of Arts and Sciences; Prof. E. W. Hopkins, Yale University, New Haven, Conn.; Prof. Edward Knox Mitchell, Hartford Theological Seminary, Hartford, Conn.; President F. K. Sanders, Washburn College, Topeka, Kan.; Prof. H. P. Smith, Meadville Theological Seminary, Meadville, Pa.

The lecturers in the course of American Lectures on the History of Religions and the titles of their volumes are as follows:

1894-1895--Prof. T. W. Rhys-Davids, Ph.D.--Buddhism.

1896-1897--Prof. Daniel G. Brinton, M.D., LL.D.--Religions of Primitive Peoples.

1897-1898--Rev. Prof. T. K. Cheyne, D.D. Jewish Religious Life after the Exile.

1898-1899--Prof. Karl Budde, D.D.--Religion of Israel to the Exile.

1904-1905--Prof. George Steindorff, Ph.D.--The Religion of the Ancient Egyptians.

1905-1906--Prof. George W. Knox, D.D., LL.D.--The Development of Religion in Japan.

1906-1907--Prof. Maurice Bloomfield, Ph.D., LL.D.--The Religion of the Veda.

1907-1908--Prof. A. V. W. Jackson, Ph.D., LL.D.--The Religion of Persia.[1]

1909-1910--Prof. Morris Jastrow, Jr., Ph.D.--Aspects of Religious Belief and Practice in Babylonia and Assyria.

1910-1911--Prof. J. J. M. DeGroot.--The Development of Religion in China.

The lecturer for 1911-1912 was Prof. Franz Cumont of Brussels, recognised as the leading authority on Greek Astrology and Mithraism. From 1892 until his resignation in 1910, Prof. Cumont held the Chair of Roman Institutions at the University of Ghent. Since 1899, he has been Curator of the Royal Museums of Antiquities at Brussels. Prof. Cumont's great work on the Mithra Cult was published in 1894-1900, and is the standard work on that subject. This was followed by a smaller summary, *Les Mystères de Mithra*, of which an English translation, under the title "Mysteries of Mithra," was published in 1903. A series of lectures delivered at the College de France on *Les Religions Orientales dans le Paganisme Romain* (Paris, 1907; 2nd ed. 1910) has also appeared in an English garb (Oriental Religions in Roman Paganism. Chicago, 1911).

In 1900 and again in 1907, Prof. Cumont conducted archeological explorations in Asia Minor and in Northern Syria, the results of which were embodied in his *Studia Pontica*(Brussels, 1906) and in a volume of Greek and Latin inscriptions published in 1911.

In 1898, in collaboration with several scholars, M. Cumont undertook a catalogue, with detailed descriptions and copious extracts, of all Greek astrological codices (*Catalogus Codicum Astrologorum Graecorum*), of which monumental work, up to the present, ten volumes have appeared. A Bibliography of Prof. Cumont's writings, including numerous articles contributed by him to archeological, historical, and philosophical journals of various countries, was published in 1908 by the Royal Academy of Belgium, of which body M. Cumont has been a member since 1902. He is also a corresponding member of the Institute de France and of the Academies of Berlin, Göttingen, and Munich.

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The lectures contained in this volume are a summary in a popular form of extensive researches carried on by Prof. Cumont for many years. They were delivered before the following institutions: The Lowell Institute, Hartford Theological Seminary, Johns Hopkins University, University of Pennsylvania, University of Chicago, Brooklyn Institute of Arts and Sciences, Meadville Theological Seminary, and Columbia University.

JOHN P. PETERS,
C. H. Toy,
Committee on Publication

December, 1911

Introduction

Ἐκ τῶν οὐρανίων τὰ ἐπίγεια ἤρτηται
κατά τινα φυσικήν συμπάθειαν.

PHILO, *De Opificio Mundi*, c. 40.

After a long period of discredit and neglect, astrology is beginning to force itself once more on the attention of the learned world. In the course of the last few years scholars have devoted to it profound researches and elaborate publications. Greek manuscripts, which had remained a sealed book at a time when the quest for unpublished documents is all the rage, have now been laboriously examined, and the wealth of this literature has exceeded all expectation. On the other hand, the deciphering of the cuneiform tablets has given access to the wellsprings of a learned superstition, which up to modern times has exercised over Asia and Europe a wider dominion than any religion has ever achieved. I trust, therefore, that I am not guilty of undue presumption in venturing to claim your interest for this erroneous belief, so long universally accepted, which

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exercised an endless influence on the creeds and the ideas of the most diverse peoples, and which for that very reason necessarily demands the attention of historians.

After a duration of a thousand years, the power of astrology broke down when, with Copernicus, Kepler, and Galileo, the progress of astronomy overthrew the false hypothesis upon which its entire structure rested, namely, the geocentric system of the universe. The fact that the earth revolves in space intervened to upset the complicated play of planetary influences, and the silent stars, relegated to the unfathomable depths of the sky, no longer made their prophetic voices audible to mankind. Celestial mechanics and spectrum analysis finally robbed them of their mysterious prestige. Thenceforth in that learned system of divination, which professed to discover from the stars the secret of our destiny, men saw nothing but the most monstrous of all the chimeras begotten of superstition. Under the sway of reason the eighteenth and nineteenth centuries condemned this heresy in the name of scientific orthodoxy. In 1824, Letronne thought it necessary to apologise for discoursing to the Academy of Inscriptions on "absurd dreams" in which he saw "nothing but one of those failings which have done most dishonour to the human mind,"[2] --as though man's failings were not often more instructive than his triumphs.

But at the end of the nineteenth century the development of history, from various sides, recalled the attention of investigators to ancient astrology. It is an exact science which was superimposed on primitive beliefs, and when classical philology, enlarging its horizon, brought fully within its range of observation the development of the sciences in antiquity, it could not set aside a branch of knowledge, illegitimate, I allow, but indissolubly linked not only with astronomy and meteorology, but also with medicine, botany, ethnography, and physics. If we go back to the earliest stages of every kind of learning, as far as the Alexandrine and even the Babylonian period, we shall find almost everywhere the disturbing influence of these astral "mathematics." This sapling, which

shot up among the rank weeds by the side of the tree of knowledge, sprang from the same stock and mingled its branches with it.

But not only is astrology indispensable to the savant who desires to trace the toilsome progress of reason in the pursuit of truth along its doublings and turnings,--which is perhaps the highest mission of history; it also benefited by the interest which was roused in all manifestations of the irrational. This pseudo-science is in reality a creed. Beneath the icy crust of a cold and rigid dogma run the troubled waters of a jumble of worships, derived from an immense antiquity; and as soon as enquiry was directed to the religions of the past, it was attracted to this doctrinal superstition, perhaps the most astonishing that has ever existed. Research ascertained how, after having reigned supreme in Babylonia, it subdued the cults of Syria and of Egypt, and under the Empire,--to mention only the West,--transformed even the ancient paganism of Greece and Rome.

It is not only, however, because it is combined with scientific theories, nor because it enters into the teaching of pagan mysteries, that astrology forces itself on the meditations of the historian of religions, but for its own sake (and here we touch the heart of the problem), because he is obliged to enquire how and why this alliance, which at first sight seems monstrous, came to be formed between mathematics and superstition. It is no explanation to consider it merely a mental disease. Even then, to speak the truth, this hallucination, the most persistent which has ever haunted the human brain, would still deserve to be studied. If psychology to-day conscientiously applies itself to disorders of the memory and of the will, it cannot fail to interest itself in the ailments of the faculty of belief, and specialists in lunacy will do useful work in dealing with this species of morbid manifestation with the view of settling its etiology and tracing its course. How could this absurd doctrine arise, develop, spread, and force

itself on superior intellects for century after century? There, in all its simplicity, is the historical problem which confronts us.

In reality the growth of this body of dogma followed a course not identical with, but parallel, I think, to that of certain other theologies. Its starting-point was faith, faith in certain stellar divinities who exerted an influence on the world. Next, people sought to comprehend the nature of this influence: they believed it to be subject to certain invariable laws, because observation revealed the fact that the heavens were animated by regular movements, and they conceived themselves able to determine its effects in the future with the same certainty as the coming revolutions and conjunctions of the stars. Finally, when a series of theories had been evolved out of that twofold conviction, their original source was forgotten or disregarded. The old belief became a science; its postulates were erected into principles, which were justified by physical and moral reasons, and it was pretended that they rested on experimental data amassed by a long series of observations. By a common process, after believing, people invented reasons for believing,--"*fides quaerens intellectum*,"--and the intelligence working on the faith reduced it to formula, the logical sequence of which concealed the radical fallacy.

There is something tragic in this ceaseless attempt of man to penetrate the mysteries of the future, in this obstinate struggle of his faculties to lay hold on knowledge which evades his probe, and to satisfy his insatiable desire to foresee his destiny. The birth and evolution of astrology, that desperate error on which the intellectual powers of countless generations were spent, seems like the bitterest of disillusions. By establishing the unchangeable character of the celestial revolutions the Chaldeans imagined that they understood the mechanism of the universe, and had discovered the actual laws of life. The ancient beliefs in the influence of the stars upon the earth were concentrated into dogmas of absolute rigidity. But these dogmas were frequently contradicted by experience, which ought to have confirmed them. Then not daring to doubt the

principles on which depended their whole conception of the world, these soothsayer-logicians strove to correct their theories. Unable to bring themselves to deny the influence of the divine stars on the affairs of this world, they invented new methods for the better determination of this influence, they complicated by irrelevant data the problem, of which the solution had proved false, and thus there was piled up little by little in the course of ages a monstrous collection of complicated and often contradictory doctrines, which perplex the reason, and whose audacious unsubstantiality will remain a perpetual subject of astonishment. We should be confounded at the spectacle of the human mind losing itself so long in the maze of these errors, did we not know how medicine, physics, and chemistry have slowly groped their way before becoming experimental sciences, and what prolonged exertions they have had to make in order to free themselves from the tenacious grasp of old superstitions.

Thus various reasons commended to the attention of scholars these old writings of the Greek astrologers so long neglected. They set to work to re-read and to re-publish these repulsive-looking books which had not been reprinted since the sixteenth century. The last edition--and a shockingly bad one--of the *Tetrabiblos* of Ptolemy is dated 1581. Further, a number of unknown authors emerged from obscurity, a crowd of manuscripts mouldering in the tombs of libraries were restored to light.[3]

The profit which can be gained from them is not confined to the science of which they treat and to the adjacent domains, which astrology has more or less penetrated. Their utility is much more varied and general, and it would be difficult to set out in full their manifold applications.[4]

I shall not dwell on the interest afforded to the scholar by a series of texts spread over more than fifteen centuries, from the Alexandrine period to the Renaissance. Nor, again, will I attempt to estimate the importance which might be claimed in the political sphere by a doctrine which has often guided the will of kings, and decided their enterprises.

Nor can I prove here by examples how the propagation of astrological doctrines reveals unsuspected relations between the oldest civilisations, and leads him who traces it from Alexandria and from Babylon as far as India, China, and Japan, bringing him back again from the Far East to the Far West.

So many questions of such varied interest cannot be considered all at once. We must exercise restraint and confine ourselves to one view of the subject. Our object in this course of lectures shall be limited to showing how oriental astrology and star-worship transformed the beliefs of the Græco-Latin world, what at different periods was the ever-increasing strength of their influence, and by what means they established in the West a sidereal cult, which was the highest phase of ancient paganism. In Greek anthropomorphism the Olympians were merely an idealised reflection of various human personalities. Roman formalism made the worship of the national gods an expression of patriotism, strictly regulated by pontifical and civil law. Babylon was the first to erect the edifice of a cosmic religion, based upon science, which brought human activity and human relations with the astral divinities into the general harmony of organised nature. This learned theology, by including in its speculations the entire world, was to eliminate the narrower forms of belief, and, by changing the character of ancient idolatry, it was to prepare in many respects the coming of Christianity.

Lecture 1. The Chaldeans

During the period of the French Revolution citizen Dupuis, in three bulky volumes “On the Origin of all Forms of Worship” (1794), developed the idea that the primary source of religion was the spectacle of celestial phenomena and the ascertainment of their correspondence with earthly events, and he undertook to show that the myths of all peoples and all times were nothing but a set of astronomical combinations. According

to him, the Egyptians, to whom he assigned the foremost place among "the inventors of religions," had conceived, some twelve or fifteen thousand years before our era, the division of the ecliptic into twelve constellations corresponding to the twelve months; and when the expedition of Bonaparte discovered in the temples of the Nile valley, notably at Denderah, some zodiacs to which a fabulous antiquity was attributed, these extraordinary theories appeared to receive an unexpected confirmation. But the bold mythological fabric reared in the heavens by the *savant* of the Revolution fell to pieces when Letronne proved that the zodiac of Denderah dated, not from an epoch anterior to the most ancient of the known Pharaohs, but from that of the Roman emperors.

Science in her cycles of hypotheses is liable to repeat herself. An attempt has recently been made to restore to favour the fancies of Dupuis, by renovating them with greater erudition. Only, the mother country of "astral mythology" is to be sought, not on the banks of the Nile, but on those of the Euphrates. The "Pan-Babylonists," as they have been called, maintain that

Behind the literature and cults of Babylon and Assyria, behind the legends and myths, behind the Pantheon and religious beliefs, behind even the writings which appear to be purely historical, lies an astral conception of the universe and of its phenomena, affecting all thoughts, all beliefs, all practices, and penetrating even into the domain of purely secular intellectual activity, including all branches of science cultivated in antiquity. According to this astral conception, the greater gods were identified with the planets, and the minor ones with the fixed stars. A scheme of correspondences between phenomena in the heavens and occurrences on earth was worked out. The constantly changing appearance of the heavens indicates the ceaseless activity of the gods, and since whatever happened on earth was due to divine powers, this activity represented the preparation for terrestrial phenomena, and more particularly those affecting the fortunes of mankind. . . . Proceeding further, it is claimed that the astral-mythological

cult of ancient Babylonia became the prevailing *Weltanschauung* of the ancient Orient, and that whether we turn to Egypt or to Palestine, to Hittite districts or to Arabia, we shall find these various cultures under the spell of this conception. It furnishes the key to the interpretation of Homer as well as of the Bible.[5] In particular, all the Old Testament should be explained by a series of sidereal myths. The patriarchs are "personifications of the sun or moon," and the traditions of the Sacred Books are "variations of certain 'motifs,' whose real significance is to be found only when they are transferred to phenomena in the heavens."

Such is a wholly impartial summary of the theories professed by the advocates of the *Altorientalische Weltanschauung*. I borrow it, with slight abbreviation, from an address delivered by Morris Jastrow, Jr., at the Oxford Congress in 1908.[6] Now of this system. it may be said that what is true in it is not new, and what is new is not true. That Babylon was the mother of astronomy, star-worship, and astrology, that thence these sciences and these beliefs spread over the world, is a fact already told us by the ancients, and the course of these lectures will prove it clearly. But the mistake of the Pan-Babylonists, whose wide generalisations rest on the narrowest and flimsiest of bases, lies in the fact that they have transferred to the nebulous origins of history conceptions which were not developed at the beginning but quite at the end of Babylonian civilisation. This vast theology, founded upon the observation of the stars, which is assumed to have been built up thousands of years before our era,--nay, before the Trojan War,--and to have imposed itself on all still barbarous peoples as the expression of a mysterious wisdom, cannot have been in existence at this remote period, for the simple reason that the data on which it would have been founded, were as yet unknown.

How often, for instance, has the theory of the precession of the equinoxes been brought into the religious cosmology of the East! But what becomes of all these symbolical

explanations, if the fact be established that the Orientals never had a suspicion of this famous precession before the genius of Hipparchus discovered it? [7] Just as the dreams of Dupuis vanished when the date of the Egyptian zodiacs was settled, so the Babylonian mirage was dispelled when scholars advanced methodically through the desert of cuneiform inscriptions and determined the date when astronomy began to take shape, as an exact science, in the observatories of Mesopotamia. This new delusion will depart to the realm of dreams to join the idea, so dear to poets of old, of Chaldean shepherds discovering the causes of eclipses while watching their flocks.

When we have to ascertain at what date oriental star-worship effected the transformation of Syrian and Greek paganism, we shall not find it necessary to plunge into the obscurity of the earliest times; we shall be able to study the facts in the full light of history. "An astral theory of the universe is not an outcome of popular thought, but the result of a long process of speculative reasoning carried on in restricted learned circles. Even astrology, which the theory presupposes as a foundation, is not a product of primitive popular fancies but is rather an advanced scientific hypothesis."[8] In this first lecture, then, we shall have to begin by asking ourselves at what date a scientific astronomy and astrology were developed at Babylon, and then proceed to examine how they led to the formation of a learned theology and gave to Babylonian religion its ultimate character.

Let us consult, the historians of astronomy. The original documents of Chaldean erudition have been deciphered and published during these last twenty years mainly by the industry of Strassmaier and Kugler,[9] and we are able to-day to realise to some extent what knowledge the Babylonians possessed at different periods.

Now here is one first discovery pregnant with consequences: before the eighth century no scientific astronomy was possible owing to the absence of one indispensable condition, namely, the possession of an exact system of chronology. The old calendar

already in use about the year 2500, and perhaps earlier, was composed of twelve lunar months. But as twelve lunar periods make only 354 days, a thirteenth month was from time to time inserted to bring the date at which the festivals recurred each year, into harmony with the seasons. It was only little by little that greater precision was attained by observing at what date the heliac rising of certain fixed stars took place. So inaccurate a computation of time allowed of no precise calculations and consequently of no astronomy worthy of the name. In fact, during the first twenty or thirty centuries of Mesopotamian history nothing is found but empirical observations, intended chiefly to indicate omens, and the rudimentary knowledge which these observations display, is hardly in advance of that of the Egyptians, the Chinese, or the Aztecs. These early observers could employ only such methods as do not necessitate the record of periodic phenomena. For instance, the determination of the four cardinal points by means of the rising and setting of the sun, for use in the orientation of temples, was known from the very earliest antiquity.

But by degrees, direct observation of celestial phenomena, intended either to enable soothsayers to make predictions or to fix the calendar, led to the establishment of the fact that certain of these phenomena recurred at regular intervals, and the attempt was then made to base predictions on the calculation of this recurrence or periodicity. This necessitated a strict chronology, at which the Babylonians did not arrive till the middle of the eighth century B.C.: in 747 they adopted the so-called “era of Nabonassar.” This was not a political or religious era, or one signalised by any important event. It merely indicated the moment when, doubtless owing to the establishment of a lunisolar cycle, they kept properly constructed chronological tables. Farther back there was no certainty in regard to the calculation of time. It is from that moment that the records of eclipses begin which Ptolemy used, and which are still sometimes employed by men of science for the purpose of testing their lunar theories. The oldest is dated March 21, 721 B.C.[10]

For the period of the Sargonides, who reigned over Nineveh from the year 722, the documents of the famous library of Ashurbanapal, and especially the reports made to these Assyrian kings by the official astrologers, allow us to form a sufficiently clear idea of the state of their astronomical knowledge. They had approximately traced the ecliptic, that is, the line which the sun seems to follow in the sky during its annual course, and they had divided it into four parts corresponding to the four seasons. Without having succeeded in establishing the real zodiac, they attempted at any rate, with the object of testing the calendar, to draw up the list of constellations whose heliac rising corresponded to the various months. From the fixed stars they already distinguished the planets to the number of five; they had traced their course, now forwards now backwards, and determined, at least approximately, the duration of their synodic revolutions,--for instance, one tablet calculates that this duration in the case of Venus is 577.5 days, instead of the actual 584. But as yet they had no idea of their respective distances from the earth, for the order in which the seven principal stars are enumerated in the inscriptions of Nineveh,--the Moon, the Sun, Jupiter, Venus, Saturn, Mercury, Mars,--has no relation to any astronomical fact. Jupiter, or Marduk, is put at the head of the five planets, because Marduk is the principal god of Babylon. Finally, those priests had not only fixed with remarkable accuracy the duration of the lunar period at a little more than twenty-nine and one half days, but, having ascertained that eclipses occurred with a certain periodicity, they had gone so far as frequently--but not regularly--to predict their recurrence. In their reports to the kings of Nineveh astrologers often prided themselves on the fact that an eclipse which they had foreseen, had occurred. This was their great achievement.

The destruction of Nineveh in the year 606 B.C. did not interrupt the conquests of astronomy. Under Nebuchadnezzar (604-561) Babylon returned to the days of her past glory, and in this ancient sanctuary of science, amid the general prosperity, astronomy

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received a new impetus, which was not checked by the almost voluntary submission of the old Semitic capital to the kings of Persia in 539. A valuable tablet, dated 523, shows the astonishing advance made since the fall of Assyria. Here for the first time we find the relative positions of the sun and the moon calculated in advance; we find, noted with their precise dates, the conjunctions of the moon with the planets and of the planets with each other, and their situation in the signs of the zodiac, which here appears definitely established,--or, to put it more briefly, the monthly ephemerides of the sun and the moon, the principal phenomena of the planets, and eclipses. All this indicates an intensity of thought and a perseverance in observation of which we have as yet no other example, and F. X. Kugler has therefore very properly regarded this tablet as the oldest known document of the *scientific* astronomy of the Chaldeans. True science is at length disencumbered of the empirical determinations which had accumulated in the course of many centuries. From that time some fifty documents, now deciphered,--the most recent of which belongs to the year 8 B.C.,--enable us to follow its development under the dominion of the Persians, the Macedonians, and the Parthians until about the commencement of our era. There is noticeable a continual advance and an increasing improvement in the methods employed, at least up to the end of the second century B.C., to which belong the most perfect examples which we possess. Chronological reckonings are rendered more accurate by the adoption of a lunisolar cycle of nineteen years; the zodiac is definitely established by the substitution for the ancient constellations of variable sizes of a geometrical division of the circle in which the planets move, into twelve equal parts, each subdivided into three portions or decans, equivalent to ten of our degrees. If the Babylonians were not aware of the precession of the equinoxes before the Greeks, at least they discovered the inequality of the seasons, resulting from a variation in the apparent speed of the sun. Above all, they calculated with astonishing accuracy the duration of the various lunar months, and, if they did not fully grasp the data of the problem of solar eclipses, they determined the conditions

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under which those of the moon took place. Finally,--and this was a still more arduous and complicated problem,--having determined the periods of the sidereal and synodic revolutions of the planets, they constructed perpetual ephemerides giving year by year the variations in the position of these five stars; then in the second century before our era they became so bold as to attempt an *a priori* calculation of planetary phenomena, such as they had previously worked out for the moon and the sun.

We have been obliged to introduce into this description certain technical details in order to fix exactly the period at which Chaldean science became established. It was not, as we have been asked to believe, in the remote obscurity of the fourth or even the fifth millennium that the mighty fabric of their astronomy was reared. It was during the first millennium that it was laboriously and gradually constructed. From this it follows that in Babylonia and in Greece, the two nations among whom the methodical study of the heavens led to the construction of systems which imposed themselves on the world, the development of these theories was partly contemporaneous. In the sixth century, when Thales is said to have predicted an eclipse, the Greeks began by being disciples of the Orientals, from whom they borrowed the rudiments of their knowledge. But towards the middle of the fifth century they soared aloft on their own wings and soon reached greater heights than their former teachers.

The Babylonians after all had studied astronomy only empirically. By applying to it trigonometry, of which their predecessors were ignorant, the Greeks attained a certainty hitherto unknown, and obtained results previously impossible. But for several centuries the development of the two sciences went on side by side in East and West, and to a large extent independently. It would now be impossible to say to whom amongst the Greeks or the Babylonians belongs the credit of certain discoveries.[11] But it is the peculiar distinction of the Chaldeans that they made *religion* profit by these new

conceptions and based upon them a learned theology. In Greece science always remained laic, in Chaldea it was sacerdotal.

There is every reason for believing that religious origins were much the same among the Babylonians as among other Semitic peoples. Here as elsewhere differentiation comes only with progress. Numerous traces are found of a primitive “animism” which regarded as divinities animals, plants, and stones, as well as wind, rain, and storm, and believed them to have mysterious relations with mankind. Being experts in divination, the Chaldeans devoted themselves from the first to the practice of deriving omens from phenomena and occurrences in which they saw manifestations of the will of that motley host of spirits which filled the universe: movements of the clouds, direction of the wind, thunder and lightning, earthquakes and floods, as well as the birth of monstrous animals, the inspection of the liver, or even the appearance of locusts seemed to be portents favourable or unfavourable to human undertakings. All this was set down in writing and codified by the priests--for, every kind of superstition was codified by these Semites as well as the laws of Hammurabi. But among the countless multitude of gods who peopled the realm of nature, the Babylonians attributed a particularly powerful influence to the stars. These brilliant objects, which they saw moving unceasingly over the vault of heaven,--conceived as a solid dome quite close to the earth,--inspired them with superstitious fear. Any one who has experienced the impression produced by the splendour of an Eastern night will understand this sense of awe. They believed that in the complicated patterns of the stars, which gleamed in the night, they could recognise fantastic shapes of polymorphous monsters, of strange objects, of sacred animals, of imaginary personages,--some of which still figure on our celestial maps. These formidable powers might be favourable or inimical. In the clearness of their transparent atmosphere the Chaldean priests continually watched their puzzling courses: they saw them appear and disappear, hide themselves under the earth to return at the other

extremity of the horizon, rising again to a new life after a transitory death, always victorious over the darkness; they observed them losing themselves in the brilliance of the sun to emerge from it presently, like a young bridegroom entering the bridal chamber to issue forth again in the morning; they followed also the windings of the planets, whose complicated path seemed to aim at throwing off the track an enemy who threatened their course; they were astonished that in eclipses the moon and even the sun himself could grow dim, and they believed that a huge black dragon devoured them or concealed them from view. The sky was thus unceasingly the scene of combats, alliances, and amours, and this marvellous spectacle gave birth to a luxuriant mythology in which there appeared, subject to no law but their own passions, all the heroes of fable, all the animals of creation, all the phantoms of imagination.

Between beings and objects, all alike conceived as living, primitive animism everywhere establishes hidden and unexpected relations, which it is the object of magic to discover and utilise. In particular, the influence which the stars exerted upon our world seemed undeniable. Did not the rising and setting of the sun every day bring heat and cold, as well as light and darkness? Did not the changes of the seasons correspond to a certain state of the sky? What wonder, therefore, that by induction men arrived at the conclusion that even the lesser stars and their conjunctions had a certain connection with the phenomena of nature and the events of human life. At an early time--and here the Pan-Babylonists are right--arose the idea that the configuration of the sky corresponds to the phenomena of the earth. Everything in sky and earth alike is incessantly changing, and it was thought that there existed a correspondence between the movements of the gods above and the alterations which occurred here below. This is the fundamental idea of astrology. Perhaps in this scheme of coincidences the Babylonians even went so far as to divide the firmament into countries, mountains, and rivers, corresponding to the geography known to them.

Here, as everywhere, the human mind long sought the way of truth in the maze of conjectures and chimeras. But the very delusion which peopled the heavenly abodes with kindly or hostile powers, whose incessant evolutions were a menace or a promise to mankind, urged the Chaldeans to study assiduously their appearances, evolutions, and disappearances. With indefatigable patience they observed them, and noted the most important social or political events which had accompanied or followed such and such an aspect of the heavens, in order to assure themselves that a given coincidence would be regularly repeated. Thus they engraved on their tablets with scrupulous care all the astronomical or meteorological phenomena from which they derived their prognostications: phases of the moon, situation and conjunctions of the planets, eclipses, comets, falls of aerolites, and halos.

The purely empirical and very simple determinations, accompanied by predictions, which have been preserved to us, are naive and almost puerile: even in the time of the Sargonides there is nothing in them which recalls the learned precision of a Greek horoscope. But from this mass of documents, laboriously collected in the archives of the temples, the laws of the movements of the heavenly bodies were disengaged with increasing precision. Primitive man commonly believes that new stars are produced each time they disappear, that the sun dies and is born each day or at least each winter, that the moon is swallowed up during eclipses, and that another takes its place. To these early ideas, all vestiges of which did not disappear, nay, have not disappeared--we speak still of a “new moon”--there succeeded the discovery that the same stars always traversed the upper spheres with a brightness which increased and diminished by turns. With the irregularity of atmospheric disturbances was necessarily contrasted the regularity of side-real revolutions and occultations. Little by little the priestly astronomers, as we have seen, succeeded in constructing an astronomical calendar and foretelling the return, at a fixed date, of phenomena previously described, and they were

able to predict to the astonished crowds the arrival of the eclipses which terrified them. There is nothing surprising in the fact that, as they ascribed to the heaven itself the revelation of this marvellous knowledge, they should have seen in astronomy a divine science.

It is impossible to exaggerate the religious importance which an eminently superstitious people attached to these discoveries. Schiaparelli, a most competent historian of the exact sciences in antiquity, has remarked that "the tendency which dominates the whole Babylonian astronomy is to discover all that is periodic in celestial phenomena, and to reduce it to a numerical expression in such a manner as to be able to *predict* its repetition in the future."[12] The scientific discoveries which were made from the Assyrian period onwards enabled astrologers, as we have seen, to foresee certain events with an absolute certainty which no other kind of prognostication attained. An endless perspective reaching far into the future was opened to minds astonished at their own audacity. Divination by means of the stars was thus elevated above all other methods which were in contemporary use. It is beyond doubt that the pre-eminence henceforth assigned to astrology was bound to lead to a transformation of the whole of theology. "The science of the observation of the heavens, which had been perfected little by little by the priests, became in their hands a body of astral doctrine, which never lost the flavour of the school, but which nevertheless permeated the entire Babylonian religion, and at least in part transformed it."[13]

The development of the old Babylonian religion bears no relation to astronomical theories. It was rather political circumstances which gave to certain gods in turn the primacy among the multitude of divinities worshipped in the land of Sumer and Accad, and, in accordance with a process which is repeated everywhere, caused the functions of other local powers to be attributed to their all-usurping and all-absorbing personality. When Babylon is the capital of the kings, it is the patron of this city, Marduk, identified

with Bel, that occupies the foremost place in the Pantheon; when Nineveh is the seat of empire, it is Ashur. Even the groupings and hierarchies, which most plainly betray the intervention of priestly combination, do not appear to be prompted by astronomical speculations. In the system of triads, which theologians conceived, the primacy was given to Anu, Enlil, and Ea, spirits of Heaven, Earth, and Water; below these they placed Sin, Shamash, or Ramman, and Ishtar, the genii of the Sun and the Moon or the atmosphere and the goddess of the fertility of the earth, identified with the planet Venus. In spite of the presence in this symmetrical arrangement of the two luminaries at all times worshipped in that country, and sometimes of the most brilliant of the stars, it is impossible to see an astral principle in this grouping. Prof. Jastrow, the best judge in these matters, does not hesitate to regard the truly sidereal cult, which grew up at Babylon under the influence of the learned theories developed by the priestly caste, as *a new religion*. I quote his words:[14]

The Star-worship which developed in Babylon and Assyria in connection with the science of the observation of the heavens was at bottom a new religion, the victory of which brought about the decadence of the old popular belief. In point of fact, in the ritual of worship, in ceremonies of incantation and purification, in hymns and prayers, in the chants of ceremonial lamentation, in old festivals, in honour of the gods of nature, just as in hepatoscopy (or examination of the livers of victims) and in the other kinds of divination, which were maintained up to the end of the Babylonian empire, popular ideas always survived. The priests would have been careful not to destroy or imperil the dominion which they exercised over the multitude by changing the forms of worship in the direction of the new religion. But astral doctrines could not, for all that, fail to make their influence felt little by little as a dissolvent force.

The new doctrines were reconciled or combined after a fashion with the old creeds by placing the abode of the gods in the stars, or by identifying them with the latter. By a

logical and fully justified development of primitive belief, which attributed to the sun and moon a powerful effect upon the earth, a preponderating influence over the determination of destiny had also been assigned to the five planets, which like the former traversed the constellations of the zodiac. These were therefore identified with the principal figures of the Assyrio-Babylonian pantheon. In accordance with the rank which was assigned to them and in accordance also with the brightness, colour, or duration of the revolution of the stars, relations were established between stars and gods. To Marduk, the foremost of the latter, was assigned Jupiter, whose golden light burns most steadily in the sky, Venus fell to Ishtar, Saturn to Ninib, Mercury to Nebo, Mars, by reason of its blood-red colour, to Nergal, patron of war. As for the fixed stars, singly or grouped in constellations, they were correlated with the less important lords, heroes, or genii. This was no impediment to regarding Ishtar, for instance, always as the goddess of the fertility of the earth, and worshipping her as such. Thus, as in the paganism of the Roman period, divinities assumed a double character, the one traditional and based on ancient beliefs, the other adventitious and inspired by learned theories.

The origin of this religious evolution goes back far into the past, but we are not able at the present day to mark the stages of its development and to assign dates to them. Perhaps it will be possible some day to follow the progress of Babylonian astronomy in the cuneiform tablets, and to show how an ever-widening conception of the heavens little by little transformed the modes of belief. Doubtless the theories of astronomers never completely eliminated the naive tales which tradition related about the divine stars; here, as elsewhere, the enquiry into physical causes failed to get rid of mythical survivals, and the doctrines of oriental cosmographers continued to be encumbered with absurd notions. In order to be convinced on this point it is sufficient to glance at

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the astronomic curiosities of the Book of Enoch, which as late as the first century before our era echoes the old Chaldean doctrines.

It may be regarded as proved that this astral religion succeeded in establishing itself in the sixth century B.C., during the period of the short-lived glory of the second Babylonian empire, and after its fall, when new ideas derived from East and West were introduced, first by the Persians and afterwards by the Greeks, into the valley of the Euphrates.[15] If, as we shall show,[16] the Platonic dialogue, the *Epinomis*, is inspired by this religion, it had already formulated some of its chief dogmas before the fourth century. The essential characteristics of its theology are known to us, not from native texts, but from the information supplied by Western writers on "Chaldean" beliefs. The word Χαλδαῖος, *Chaldaeus*, bore amongst the ancients very different meanings from time to time. These terms designated first of all the inhabitants of Chaldea, that is, lower Mesopotamia, and next the members of the Babylonian priesthood. Thus at the period of the Achamenid kings, in the official processions of Babylon, there walked first the magi, as Quintus Curtius states,[17] that is to say the Persian priests established in the conquered capital, then the *Chaldaei*, that is the native sacerdotal body. Later the epithet Χαλδαῖος was applied as a title of honour to the Greeks who had studied in the Babylonian schools and proclaimed themselves disciples of the Babylonians; finally it served to denote all those charlatans who professed to foretell the future according to the stars. The variations in meaning of this ethnical term, which ultimately became, like the term *magi*, a professional designation, have produced in turn an immense exaggeration of the antiquity, or an undue depreciation of the worth, of the data furnished us by Diodorus Siculus,[18] Philo of Alexandria, and other writers on the religious and cosmic system of the "Chaldeans." These pieces of information, as might be expected, are of value only for the period immediately preceding these authors. They apply to those conceptions which were current among the priests of Mesopotamia

under the Seleucids at the moment when the Greeks entered into continuous relations with them. Some of these conceptions are certainly very much older, and go back to ancient sacerdotal traditions. Diodorus contrasts the unity of the doctrines of the hereditary caste of the Chaldeans with the divergent views of the Greek philosophers on the most essential principles; but it is possible that the speculative mind of the Greeks had contributed to the clear formulation of these ancient beliefs and to the co-ordination of the dogmas of this religion, as it had done also in the case of astrology, which is a part of that religion.

The following are the broad lines of this theology.

From the leading fact established by them, namely, the invariability of the sidereal revolutions, the Chaldeans had naturally been led to the idea of a Necessity, superior to the gods themselves, since it commanded their movements; and this Necessity, which ruled the gods, was bound, *a fortiori*, to hold sway over mankind. The conception of a fatality linked with the regular movements of the heavens originated at Babylon, but this universal determinism was not there carried to its ultimate logical consequences. A sovereign providence had, it is true, by an irrevocable decree regulated the harmony of the world. But certain disturbances in the heavens, irregular occurrences such as appearances of comets or showers of falling stars, sufficed to maintain the belief in the exceptional operation of a divine will interfering arbitrarily in the order of nature. Priests foretold the future according to the stars, but by purifications, sacrifices, and incantations they professed to drive away evils, and to secure more certainly the promised blessings. This was a necessary concession to popular beliefs which the very maintenance of the cult demanded. But under normal conditions, as experience proved, the divine stars were subject to an inflexible law, which made it possible to calculate Beforehand all that they would bring to pass.

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In oriental civilisations, which are priestly civilisations, the intimate union of learning and belief everywhere characterises the development of religious thought. But nowhere does this alliance appear more extraordinary than at Babylon, where we see a practical polytheism of a rather gross character combined with the application of the exact sciences, and the gods of heaven subjected to the laws of mathematics. This strange association is to us almost incomprehensible, but it must be remembered that at Babylon a *number* was a very different thing from a *figure*. Just as in ancient times and, above all, in Egypt, the *name* had a magic power, and ceremonial words formed an irresistible incantation, so here the number possesses an active force, the number is a symbol, and its properties are sacred attributes. Astrology is only a branch of mathematics, which the heavens have revealed to mankind by their periodic movements.

From their, main discovery, that of the invariability of astronomical laws, the Chaldeans had deduced another important conclusion, namely, the eternity of the world. The world was not born in the beginning, it will not be subject to destruction in the future; a divine providence has from the out-set ordered it as it shall be for ever. The stars, in fact, perform their revolutions according to ever invariable cycles of years, which, as experience proves, succeed each other to infinity. Each of these cosmic cycles will be the exact reproduction of those which have preceded it, for when the stars resume the same position, they are bound to act in precisely the same manner as before. The life of the universe, then, was conceived as forming a series of vast periods, which the most probable estimate fixed at 432,000 years. As early as the beginning of the third century before our era, Berosus, a priest of Bel, expounded to the Greeks the theory of the eternal return of things, which Nietzsche prided himself on having discovered.

In the same way as it regarded numbers as sacred, this religion of astronomers defied Time, the course of which was bound up with the revolutions of the heavens. At regular

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intervals it brought back the moon, the sun, the stars to their starting-point, and as it seemed to govern their movements, it was naturally regarded as a divine power. It was the heavenly bodies that by their regular movements taught man to divide into successive sections the unbroken chain of moments. Each of the periods marked in the unending flight of time shared the divinity of the stars, particularly the Seasons. In their worship old festivals of nature were combined with ideas derived from astrology.

Babylonian theology had never entirely broken with the primitive veneration with which Semitic tribes regarded all the mysterious forces surrounding man. In the time of Hammurabi the supreme triad was composed, as we have said, of the gods of Heaven, Earth, and Water. Sidereal theology had systematised this very ancient cult of the powers of nature by connecting them with astronomical theories. A vast pantheism had inherited and codified the ideas of ancient animism. The eternal world is wholly divine, either because it is itself God, or because it is conceived as containing within it a divine soul which pervades all things. The great reproach which Philo the Jew casts upon the Chaldeans is precisely this, that they worship the creation instead of the Creator.

This world is worshipped in its entirety, and worship is paid also to its various parts: first of all, to Heaven, not only in virtue of a reminiscence of the old Babylonian religion, which gave the foremost place in the Pantheon to Anu, but also because it is the abode of the higher powers. Among the stars the most important were conceived to be the moon and the sun,--for it is in this order that they were placed,--then the five planets, which were, as we have seen, dedicated to, or identified with, the principal divinities of mythology. To them was given the name of *Interpreters*, because, being endowed with a particular movement, not possessed by the fixed stars, which are subject to a motion of their own, they above all others make manifest to man the purposes of the gods. But worship was also bestowed on all the constellations of the firmament, as the revealers of the will of Heaven, and in particular on the twelve signs of the zodiac, and the thirty-six

decans, which were called the *Counsellor Gods*; then, outside the zodiac, on twenty-four stars, twelve in the northern, and twelve in the southern hemisphere, which, being sometimes visible, sometimes invisible, became the *Judges* of the living and the dead. All these heavenly bodies, whose variable movements and activities had been observed from the remotest times, announced not only hurricanes, rains, and scorching heats, but the good or evil fortune of countries, nations, kings, and even of mere individuals.

The domain of the divine god did not end at the zone of the moon, which is the nearest to us. The Chaldeans also worshipped, as beneficent or formidable powers, the Earth, whether fruitful or barren, the Ocean and the Waters that fertilise or devastate, the Winds which blow from the four points of the horizon, Fire which warms and devours. They confounded with the stars under the generic name of Elements (στοιχεῖα) these primordial forces, which give rise to the phenomena of nature. The system which recognises only four elements, prime sources of all things, is a creation of the Greeks.

If all the movements of the heavens inevitably have their reactions upon the earth, it is, above all, the destiny of man that depends upon them. The Chaldeans admitted, it appears, that the principle of life, which warms and animates the human body, was of the same essence as the fires of heaven. From these the soul received its qualities at birth, and at that moment the stars determined its fate here below.[19] Intelligence was divine, and allowed the soul to enter into relations with the gods above. By contemplating the stars the faithful received from them the revelation of all knowledge as well as all prescience. The priestly astrologers were always to some extent visionaries, who regarded as inspirations from on high all the ideas which sprang up in their own minds. Doubtless they had already conceived the idea that after death pious souls re-ascend to the divine stars, whence they came, and in this celestial abode obtain a glorious immortality.[20]

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To sum up, at the moment when the Greeks conquered Mesopotamia under Alexander, they found above a deep substratum of mythology a learned theology, founded on patient astronomical observations, which professed to reveal the nature of the world regarded as divine, the secrets of the future, and the destinies of man. In our next lecture we shall attempt to show what influence the Babylonian religion in contact with Hellenism exerted and underwent in turn, and how it was combined with the Stoic philosophy.

Lecture 2. Babylon And Greece

The relations of Greek philosophy with oriental theologies form a subject of vast extent, which has long been discussed. In this lecture we do not pretend to solve these problems or even to cover the whole ground which they embrace. Our interest is confined to one particular point, namely, when and how Semitic star-worship came to modify the ancient beliefs of the Hellenes.

Every sidereal cult, properly so called, was originally foreign to the Greeks as to the Romans--a fact which undoubtedly proves that the common ancestors of the Italians and the Hellenes dwelt in a northern land, where the stars were frequently concealed by fogs or obscured by clouds. For them nearly all the constellations remained a nameless and chaotic mass, and the planets were not distinguished from the other stars. Even the sun and the moon, although they were regarded as divinities, like all the powers of nature, occupied but a very secondary place in the Greek religion. Selene does not appear to have obtained anywhere an organised cult, and in the few places where Helios had temples, as for instance in the island of Rhodes, a foreign origin may reasonably be suspected.

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Aristophanes characterises the difference between the religion of the Greeks and that of the barbarians by observing that the latter sacrifice to the Sun and the Moon, the former to personal divinities like Hermes. The pre-Hellenic populations very probably shared the worship of "the barbarians" of whom Aristophanes speaks, and survivals are found in popular customs and beliefs. Perhaps, also, certain distant reminiscences of the original naturalism of the Aryan tribes led the common people to regard the stars as living beings. It was a shock to popular belief when Anaxagoras maintained that they were merely bodies in a state of incandescence. But although the piety of the multitude was full of reverence for the great celestial luminaries, rulers of the day and of the night, the cities did not build temples to them. The cult of these cosmic powers had been eliminated by anthropomorphism.

From the days of Homer the gods are no longer physical agents, but moral--or, if you like, immoral--beings. Resembling men in their passions, they are their superiors in power alone; the close resemblance of their feelings to those of their devotees leads them to mingle intimately in the earthly life of the latter; inspired by a like patriotism they take part with the opposing hosts in the strifes of the cities, of which they are the official protectors; they are the protagonists in all the causes which are espoused by their worshippers. These immortal beings, whose image has been impressed upon the world by an aristocratic epic, are but faintly distinguished from the warrior heroes who worship them, save by the radiance of eternal youth. And sculptors, by investing them with a sovereign grace and a serene majesty, enabled them to elevate and ravish the souls of men by the mere sight of their imperishable beauty. The whole spirit of the Hellenic religion, profoundly human, ideally æsthetic, as poets and artists had fashioned it, was opposed to the deification of celestial bodies, far-off powers, devoid of feeling and of plastic form.

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But though the prevalent worship and the city cults turned from the stars to venerate the august company of Olympians, though Apollo in the guise of a radiant youth eclipses the material brilliance of Helios, yet we find that the *philosophers* assign a place of honour to these same luminaries in their pantheon. Their systems, from the days of the Ionian physicists, revive and justify the old naturalistic beliefs, which were never entirely eradicated from the popular creed. Already in the eyes of Pythagoras the heavenly bodies are divine, moved by the ethereal soul which informs the universe and is akin to man's own soul. Plato accuses Anaxagoras of favouring atheism by his daring assertion that the sun is merely an incandescent mass and the moon an earth. Below the supreme eternal Being, who unites in himself every perfection, Plato would have us recognise the stars as "visible gods," which He animates with his own life, and which manifest his power. To the reformer's mind these celestial gods are infinitely superior to those of the popular religion. This conception of the great idealist, to whom the theology of the ancient and even that of the modern world owes more than to any other thinker, was to be developed by his successors, and in their hands astronomy became almost a sacred science. With no less pious zeal, Plato's rival, Aristotle, defends the dogma of the divinity of the stars: in them, as in the First Cause itself, he sees eternal substances, principles of movement, and therefore divine; and this doctrine, which thus forms an integral part of his metaphysic, was to disseminate itself throughout the ages and throughout the world, wherever the authority of the Master was recognised.

In deifying the celestial bodies, these philosophers may have been influenced by the desire of recommending to the veneration of their disciples beings more pure than those whom mythology represented as the sorry heroes of ridiculous or indecent legends, and to whom fable attributed all sorts of mischievous and shameful deeds. The polemics of the early rationalists had discredited these absurd or odious myths, and the deification of the stars, while saving polytheism, which was practically indestructible,

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suppressed anthropomorphism, which Xenophanes had already attacked so resolutely. The new sidereal theology has all the appearance of a compromise between popular beliefs and pure monotheism.

The philosophers may also have been led to this view, I readily grant, by the logical development of their own thought: the unceasing movement of these enormous masses showed that they were living beings, and the eternal immutability of their orbits proved that a superior reason directed their everlasting course. The admirable harmony of their relations, the inevitable, as well as the perennial, regularity of their revolutions implied the presence of a divine essence in them.

All this is quite true: practical motives and theoretical reasons may have simultaneously influenced these thinkers. But nevertheless it is impossible to doubt that in their attempts at the reformation of religion they were also inspired by the example which was set by the nations of the Orient. The Greeks, who owed the fundamental axioms of their uranography to the Babylonians, would not fail to be struck also by the lofty character of a star-worship which had become scientific. The elements of their sidereal theology were, in all probability, derived from external sources together with the rudiments of their astronomy.

Here we touch a question which is very extensive and still very obscure, in spite of the interminable discussions which it has provoked,--or perhaps by reason of these impassioned discussions. The history of the intellectual development of the ancient world offers perhaps no more fundamental problem than that of the influence which Babylonian science exercised on Greece.

Recently, as we have observed, a certain school of Assyriologists has curiously exaggerated the extent of this influence, and the excesses of the “Pan-Babylonists” have provoked a well-founded distrust of those fanciful views which see in Chaldea the

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mother of all wisdom. But the reality of Hellenic borrowings from Semitic sources remains none the less indisputable. At a distant date Hellas received from the far East a duodecimal or sexagesimal system of measurement, both of time and of objects. The habit of reckoning in terms of twelve hours which we still use to-day, is due to the fact that the Ionians borrowed from the Orientals this method of dividing the day. Besides the acquaintance with early instruments, such as the sun-dial,[21] they owed to the observatories of Mesopotamia the fundamental data of their celestial topography: the ecliptic, the signs of the zodiac, and the majority of the planets. To this first influx of positive knowledge corresponds a first introduction into the Greek systems of the mystic ideas which Orientals attached to them. I will not lay stress on the doubtful traditions which make Pythagoras a disciple of the Chaldeans, but it has proved possible to demonstrate that his system of numbers and geometrical figures, designed to represent certain gods, is in accordance with astrological theories. The dodecagon bears the name of Jupiter because this planet traverses the circle of the zodiac in twelve years, that is to say, each year it traverses an arc terminated by the angles of the polygon which is inscribed in that circle.

But these first scientific and religious importations are assigned to a period when, as we know, the commercial cities of Ionia threw open their gates to Asiatic influences. It is more important to collect the traces of these Chaldean infiltrations after the Persian wars when Greek thought had achieved its autonomy. Certain facts recently brought to light indicate that the relations, direct or indirect, between the centres of Babylonian learning and of Greek culture, were never at any time entirely broken off. [22]

It is known that Meton passes as the inventor of a cycle of nineteen years (*enneakaidekaëteris*) which would establish a periodic agreement between the old lunar year and the solar revolutions, and which replaced the ancient *octaëteris*, or cycle of eight years, up to that time in use. The Golden Number [23] of our calendars still reminds

us how, according to the tradition, this discovery, communicated to the Athenians in the year 432, excited their admiration to such a degree that they caused the calculations of Meton to be engraved in golden characters in the Agora. All this is, however, a fable. Since an *octaëteris* is proved to have been in use at Babylonia, by documents of the sixth century, and an *enneakaidekaëteris* by inscriptions of the fourth century, and this latter may well be much older, it seems difficult to believe that Meton was not prompted by the example which the Orientals set him. This is the more probable because he would appear to have had some superficial acquaintance with astrology, if we may believe that, at the moment of the departure of the fleet for Sicily, his science revealed to him the disaster which awaited that expedition. It is true that it is always possible to maintain that the Babylonians and the Greeks arrived independently at the same conclusions, or even to go so far as to assert that the former were the imitators of the latter.

But here is a more convincing argument. When the Greeks learned to recognise the five planets known in antiquity, they gave them names derived from their character. Venus, whose brightness Homer had already celebrated, was called "Herald of the Dawn" (Ἑωσφόρος) or "Herald of Light" (Φωσφόρος) or on the other hand "Vespertine" (Ἕσπερος), according as she was considered as the star of the morning or that of the evening (the identity of these two being not yet recognised). Mercury was named the "Twinkling Star" (Στίλβων), Mars, because of his red colour, the "Fiery Star" (Πυρόεις), Jupiter the "Luminous Star" (Φαέθων), Saturn the "Brilliant Star" (Φαίνων), or perhaps, taking the word in another sense, the "Indicator." Now, after the fourth century other titles are found to supersede these ancient names, which are gradually ousted from use. The planets become the stars of Hermes, Aphrodite, Ares, Zeus, Kronos, (Ἑρμοῦ, Ἀφροδίτης, κτλ. ἀστήρ). Now this seems due to the fact that in Babylonia these same planets were dedicated respectively to Nebo, Ishtar, Nergal, Marduk, and Ninib. In accordance with the usual procedure of the ancients, the Greeks substituted for these

barbarous divinities those of their own deities who bore some resemblance to them. Clearly exotic ideas, the ideas of Semitic star-worship, have come in here, for the ancient mythology of Hellas did not put the stars under the patronage of the Olympians nor establish any connection between them. Thus the names of the planets which we employ to-day, are an English translation of a Latin translation of a Greek translation of a Babylonian nomenclature.

Perhaps some doubt might still remain, if we did not see at the same time some very peculiar beliefs of the sidereal religion of Babylon creeping into the doctrines of the philosophers. It is a well-known fact that this religion formed a triad, Sin, Shamash, and Ishtar. To the god of the Moon, regarded as the most powerful of the three, and to the Sun had been added Venus, the most brilliant of the planets. These are the three great rulers of the zodiac, and their symbols,--crescents, discs, containing a star of four or six points--appear on the top of the boundary pillars (*kudurru*) from the fourteenth century B.C. Now the same association is found in an extract from Democritus, where the Sun, the Moon, and Venus are distinguished from the other planets.[24] The echo of the same theory extended even to the Romans. Pliny, in a passage which owes its erudition to some Chaldean author of the Hellenistic period,[25] remarks that Venus is "the rival of the Sun and the Moon," and he adds that "alone among the stars she shines with such brilliance that her rays cast a shadow,"--a statement which would be absurd in the climate of Rome, but which is strictly correct under the clear sky of Syria.

Another instance of borrowing is still more obvious. To Babylonian astrologers Saturn is the "planet of the Sun," he is the "Sun of the night,"[26] that is to say, according to a system of substitutions, of which there are many examples, Saturn could take in astrological combinations the place of the star of day when the latter had disappeared. Diodorus was well aware of this fact. When explaining (II, 30) that the Chaldeans designate the planets as "the Interpreters" (ἑρμηνεῖς), because by their course they

reveal to men the will of the gods, he adds: “the star which the Greeks name Kronos they call the ‘star of the Sun,’ because it is the most prominent, and gives the most numerous and most important predictions.”

Now in the *Epinomis* of Plato,--it matters little in this connection whether this be a work of the Master himself in his old age, or whether it was composed by his pupil, Philip of Opus, who after copying the Laws may have added this appendix,--there is an allusion to this peculiar doctrine. In the enumeration of the planets which is there made it is stated that the slowest of them all bears according to some people the name of Helios.[27] Moreover, the fact that the writer was acquainted with oriental theories comes out no less clearly from certain expressions of which he makes use in this passage, than from the very object which he has in view. He dreamed of a reconciliation between the cult of Apollo of Delphi, and that of the sidereal gods which the piety of Syria and Egypt had taught to the Greeks. According to him it behoved the Greeks to perfect this worship of the stars, recently introduced into their country, as they had perfected everything which they had received from the barbarians. These phrases, in which Hellenic pride is clearly revealed, while at the same time there slips in a confession of dependence on the foreigner, are highly characteristic. Their whole significance is apparent now that a typical detail has revealed to us what the author’s astronomical learning owes to the Chaldeans. Hereafter perhaps it will be proper to attach some importance to a note preserved in a papyrus of Herculaneum,[28] and due, it seems, to this very Philip of Opus to whom the composition of the *Epinomis* is attributed. It would appear that Plato in his old age received a “Chaldean” guest, who was able to instruct him in the discoveries made by his compatriots.

It seems to me to be beyond doubt that the influence of oriental star-worship upon the *Epinomis* was much more extensive than has hitherto been admitted. It is not from the Pythagoreans that the author borrows, but, as he himself says, from the Syrians. We

find set forth or indicated in this brief dialogue the fundamental doctrines, of which we have already seen some expressly attributed to the Chaldeans, while others we shall find developed in the stellar theology of the Roman period.

These doctrines are the idea that science in general is a gift of the gods, and that mathematics in particular were revealed to men by Uranus, considered as a deity, who caused them to be understood by his periodical phenomena; the demonstration that, whatever may be the opinion of the vulgar, the stars are animated and divine, and that between these celestial divinities and the earth a hierarchically organised army of airy spirits acts as intermediary; the declaration that the most perfect of the sciences is astronomy, which has become a theology. Man, the author says, attracted by the beauty of the visible world, does not merely conceive the desire of knowing all that his nature allows him to apprehend, he rises to a fervent contemplation of the wondrous spectacle of harmonious movements, which surpass all choruses in majesty and magnificence. This study, in short, is inseparable from virtue; this wisdom secures supreme happiness, and it has as its reward in the next world a life of bliss like that which the pious astronomer has led on earth, but more perfect, a life in which he will be entirely absorbed in the contemplation of celestial splendours, and will attain to supreme felicity.

Truly the *Epinomis* is that which it professes to be: the first gospel preached to Hellenes of the stellar religion of Asia. The ideas which are here set forth will not cease to influence the Platonic school. Thus Xenocrates, to whom astronomy is a sacred science, will develop demonology, and we shall see how an eclectic, Posidonius, will expand and exalt these same conceptions.

But, it will be said, if the Greeks thus bowed to the supremacy of the sidereal theology of the Chaldeans, how was it that astrology was not introduced among them? For from the sixth to the fourth century the whole marvellous development of their philosophy shows that it knows nothing of cosmic fatalism and stellar divination. Speaking

generally, this assertion is correct, although certain traces of these speculations are found, as we have seen, in works of the early Pythagoreans, and recently a Chaldean doctrine has been successfully employed to explain a passage of Pindar.[29] Now, about the period when Philip of Opus published or wrote the *Epinomis*, another pupil of Plato, the astronomer Eudoxus of Cnidos, declared: "No credence should be given to the Chaldeans, who predict and mark out the life of every man according to the day of his nativity."[30] Certain modern philologists--who doubtless look upon Greek history as a kind of experiment in a closed vessel, which a providence anxious to exclude every disturbing element conducted for the fullest instruction of the *savants* of the future--certain philologists, I say, have doubted whether Eudoxus in the fourth century could really have known and condemned oriental genethlialogy. But like Eudoxus, Theophrastus, a little later, spoke of it in his treatise on "Celestial Signs": he regarded with surprise the claim of the Chaldeans to be able to predict from these signs the. life and death of individuals, and not merely general phenomena, such as good or bad weather.[31]

The insatiable curiosity of the Greeks, then, did not ignore astrology, but their sober genius rejected its hazardous doctrines, and their keen critical sense was able to distinguish the scientific data observed by the Babylonians from the erroneous conclusions which they derived from them. It is to their everlasting honour that, amid the tangle of precise observations and superstitious fancies which made up the priestly lore of the East, they discovered and utilised the serious elements, while neglecting the rubbish.

As long as Greece remained Greece, stellar divination gained no hold on the Greek mind, and all attempts to substitute an astronomic theology for their immoral but charming idolatry were destined to certain failure. The efforts of philosophers to impose on their countrymen the worship of "the great visible gods," as Plato terms them,

recoiled before the might of a tradition supported by the prestige of art and literature. It was a purely intellectual movement which remained, as it would seem, without serious practical result. It changed neither popular nor official worship. The populace continued to pray "κατὰ τὰ πάτρια," after the fashion of their ancestors, to old protectors of family and city, and the formulary of the old-fashioned liturgies remained unchanged in spite of all the objections which the science of the reformers could raise against it.

But after the conquests of Alexander a great change took place. The ancient ideal of the Greek republic gave way to the conception of universal monarchy. Thenceforth municipal cults disappeared before an international religion. The worship of the stars, common to all the peoples, was strengthened by everything that weakened the particularism of cities. In proportion as the idea of "humanity" spread, men were the more ready to reserve their homage for those celestial powers which extended their blessings to all mankind, and princes who proclaimed themselves the rulers of the world, could not be protected save by cosmopolitan gods.

Thus it was that thinkers agreed more and more in reserving the foremost place for the sidereal deities. Zeno and his disciples proclaimed their might still more clearly than the schools of Plato and Aristotle. Since stoic pantheism represented Reason, which governs all things, as residing in ethereal Fire, the stars in which the supreme Fire manifested itself with the greatest force and brilliance, would necessarily be invested with the loftiest divine qualities. In the same way the prodigious success attained by the doctrine of Euhemerus contributed to the exaltation of their power. This doctrine, we know, regarded the divinities of fable as superior mortals, to whom after death the gratitude or admiration of the multitude had accorded worship. In thus attributing to the Olympians of old no longer merely human form but also human nature, it left to the eternal and incorruptible stars alone the dignity of original gods, and exalted them in proportion as it lowered their rivals of bygone days.

Thus the political condition of the world, just as the tendencies of theology, drew Hellenism towards star-worship. But the interpenetration of the Orient and Greece which took place in this period, hastened this religious evolution in a remarkable manner. The Stoa, as we shall see, was freely accessible to barbaric influences, and Euhemerus, we are told, drew his inspiration from Egyptian theologoumena. But the decisive agency was the contact which was established in the Seleucid Empire between Hellenic culture and Babylonian civilisation.

The Chaldeans, whom the policy of the kings of Antioch strove to conciliate, entered into close relations with the learned men who came to Asia in the train of their conquerors, and they even proceeded to carry their precepts throughout the land of Greece. A priest of Bel, Berosus, established himself about the year 280 in the island of Cos, and there revealed to his sceptical hearers the contents of the cuneiform writings accumulated in the archives of his country, annals of the ancient kings and astrological treatises. Another Chaldean, Soudines, invited to the court of Attalus I, king of Pergamus, practised there, about the year 238, the methods of divination in vogue in his native land, such as inspection of the liver (ἡπατοσκοπία), and he continued to be an authority frequently quoted by the later "mathematici." On the other hand, Greek savants of repute, Epigenes of Byzantium, Apollonius of Myndus, Artemidorus of Parium, declared themselves the disciples of these same Chaldeans, and boasted of being instructed in their priestly schools. At the same time centres of Greek science were established in the heart of Mesopotamia, and in the ancient observatories of Bel learners were initiated into the methods and discoveries of the astronomers of Alexandria or Athens. Under the Seleucids and the early Arsacids Babylon was a hellenised city, as is proved by the epigraphical discoveries which have been made there. Of this interpenetration of oriental and occidental learning we can to-day quote some striking proofs. So it has quite recently been shown that a series of prognostications derived

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from earthquakes, thunderstrokes, or the course of the moon were literally translated from Assyrian texts into the Greek *Brontologia* and *Selenodromia*.[32] But though the reality of the relation between the two sciences and pseudo-sciences is uncontested and incontestable, there remains the difficulty of deciding in each case which of the two influenced the other.

Thus it has been maintained that the ancient Babylonians were already acquainted with the precession of the equinoxes,[33] but an examination of cuneiform tablets reveals the very important fact that they were ignorant of it at least up to about the end of the second century B.C. The credit of this discovery clearly belongs, therefore, to Hipparchus of Nicæa (about 161--126) as tradition asserts, and it is to him that the observatories of Mesopotamia owed the knowledge of it. But conversely, thanks to the recent publication of astrological treatises, it is possible to show that certain discoveries hitherto attributed to Hipparchus owe their origin in reality to some genuine Chaldeans. In one exceptional case we can detect a borrowing in the very act and indicate the intermediary who effected the transfer. Perhaps, then, some details will not be deemed superfluous here.[34]

The part of astronomy in which Babylonians pushed their investigators furthest was probably the determination of the course of the moon, which enabled them to predict the periodic return of eclipses. Undoubtedly this was one of the most ancient studies to which the people of that country directed their energies. Sin, the Moon-god, was in their eyes a more considerable divinity than the Sun, Shamash, himself. Before the duration of the year was known, the phases of the moon served to measure time, and to fix the dates of sacred calendars; moreover, the star of night allowed herself to be observed by the naked eye better than any other, and it was possible to follow almost continuously her winding course in the heavens. The experience, extending over thousands of years, of this priesthood of astrologers, had led them little by little to construct tables, which

had attained a high degree of precision at the moment when, under Alexander, the Greeks entered into direct relations with them. The remains of these tables have been deciphered and interpreted by F. X. Kugler, and, astonishing to relate, they have revealed to him a mistake which was introduced into, and, perpetuated in, the calculations of modern astronomers. The old notations of the Chaldeans have allowed a correction of the canons of Oppoizer! About the year 200 before our era these learned priests had succeeded in determining in advance not only the dates of the phases and eclipses of the moon, but also the principal phenomena of the five planets.[35] Although in general inclined to depreciate the value of Babylonian science, in opposition to those who have unduly exaggerated it, this most authoritative modern interpreter of it marvels at the aspect of these great tables with their numerous columns regularly arranged, of which the figures dovetail into each other like the cogwheels of a machine, and the arrangement of which is expounded in explanatory notes. "One does not know," he cries, "which to admire the more: the extraordinary accuracy of the periods which is implied by the drawing up of each of the columns of figures, or the ingenuity with which these old masters contrived to combine all the factors to be considered." Even before the cuneiform inscriptions had been deciphered, historians admitted that the Chaldeans had deduced from their empirical observations, amassed from generation to generation, a theory of the motions of the moon which influenced the development of Greek doctrines. Further, an evident proof of this is supplied by the fact that in the *Almagest* Ptolemy[36] quotes, after Hipparchus, the eclipses of the years 621, 523, 502, 491, 383 B.C., observed at Babylon, and the first of these has been found noted in an Assyrian text. How absolutely the astronomer of Nicæa relied on his oriental predecessors can be ascertained to-day from some figures. Ptolemy attributed to Hipparchus an extremely exact calculation of the lunar periods; but it has been possible to demonstrate that the duration which he assigns to the various months is precisely that which is laid down in the cuneiform tablets, namely:

Mean / synodic / month / 29 / days / 12 / hours / 44′ 31.3″

″ / sidereal / ″ / 27 / ″ / 7 / ″ / 43′ 14 ″

″ / anomalistic / ″ / 27 / ″ / 13 / ″ / 18′ 34.9″

″ / dracontic / ″ / 27 / ″ / 5 / ″ / 5′ 35.8″ [37]

Clearly the priority of discovery belongs to the Orientals, as well as that of the inequality of the length of the seasons, of which they were perfectly aware.

But how did these data and these doctrines pass from the banks of the Euphrates to the Greek cities? Who was the intermediary between Hipparchus and the priests of Babylon? Documents recently published have revealed his name. Strabo, speaking of the schools of astronomers called "Chaldean," which existed in various towns of Mesopotamia, adds:[38] "Mathematicians frequently mention several of them, as Kidenas, Nabourianos, and Soudines." According to Pliny[39] the same Kidenas had recognised that Mercury is never more than 23° from the sun. This Kidenas was probably contemporary with Soudines, who lived in the second half of the third century before Christ.

Now the astrologer, Vettius Valens,[40] who wrote under the Antonines, tells us that he attempted to make for himself a canon of the sun and the moon for the purpose of determining eclipses, but, as time failed him, "he resolved to make use of Hipparchus for the sun, and Soudines, Kidenas and Apollonius for the moon . . . putting in their proper places the equinoxes and solstices at the eighth degree of the signs of the zodiac." Further, a passage in an anonymous commentary on Ptolemy [41] represents Kidenas as the inventor of an ecliptic period of 251 lunations (synodic months) and 269 anomalistic revolutions, the authorship of which was usually attributed to Hipparchus. It appears from this treatise that Hipparchus did not adopt simultaneously, as was believed, two ecliptic periods, one large, of 4267 lunations and 4573 anomalistic revolutions, and one small, one seventeenth of the former, consisting of 251 lunations and 269 anomalistic revolutions, but that he borrowed this latter from Kidenas and appears merely to have

multiplied it by 17 in order to make it correspond to a nearly exact number of years, say 4612 sidereal revolutions (345 years) *minus* 7½°.

Now on a lunar table engraved in the second century in cuneiform characters on 18 columns, a masterpiece of accuracy, can be read the signature *Ki-din-nu*, and though ordinary scribes add their father's name, *Ki-din-nu* is without any addition: he is the astronomer whom every one knew.

Schiaparelli had already suspected the identity of this personage with the Kidenas of the Greeks. Kugler has definitely proved it,[42] for the equivalence of 251 synodic and 269 anomalistic months, which Ptolemy's commentator attributes to him, is found precisely stated in this table of Kidinnu, and further the same table places the equinoxes and the solstices at the 8th degree of the signs of the zodiac, as did Valens, who quotes the canons of Kidenas. To Hipparchus, on the contrary, the commencement of spring is the 0° of the Ram, but the Roman calendars usually adopted the 8th degree in conformity with the ancient usage of Babylon.

Kidenas or Kidinnu, then, belongs to that group of hellenised Chaldeans of whom Berosus is the most illustrious representative, and who in the third century before our era devoted themselves to the task of rendering accessible to the Greeks the treasures of knowledge which were contained in the cuneiform documents amassed in the libraries of their native land. On these traditional data he based the hypothesis of a new ecliptic period more correct than that of his Chaldean predecessors, which was employed by Hipparchus and afterwards by Ptolemy. The very quotations which are made from his works by Western writers prove that he had them translated into Greek and that he thus enriched Hellenic astronomy with these lunar canons, to which the observations taken at Babylon, extending over a long period of centuries, had given an admirable precision.

Thus we see critical researches gradually determining the extent of the debt which Greece owes to Babylon, and substituting palpable realities for the huge and shadowy phantoms which wandered in the pre-historic twilight. The influence of the old oriental civilisation was not exercised solely on the domain of science, but also of literature. Prof. Diels of Berlin has recently pointed out[43] how the often satirical tales, in which trees and plants appear, belong to a class of fables popularised in Assyria before they were repeated by Callimachus in his *Iambics* and by the successors of Æsop. Further, the recent discovery of an Aramaic manuscript of the fifth century at Elephantine has enabled us to show how the romance of Akichar passed from the banks of the Euphrates to the Jewish communities of Palestine and Egypt (to which it furnished the motive of the book of Tobit) and reached Greece, where Theophrastus adopted it and immortalised the wise Akicharos. But above all, Babylon was to the men of old the mother of astronomy, as of star-worship. It is in this department more than all others that it is possible to show how the Greeks profited from the learned theories which had been formulated, and from the positive data which had been slowly accumulated by these ancient priests of Mesopotamia

Longa per assiduam complexi saecula curam.[44]

The constructive logic of the Greeks, combining with the patient labours of the indigenous race, produced in those days on the banks of the Euphrates an intellectual movement, too little known, which would perhaps have attained to the glory of Alexandrine science, if it had not been lamentably arrested in the latter half of the second century by the ravages of the Parthian invasion and the sack of Babylon. The Chaldeans themselves, emancipated from tradition, discussed freely the principles of the universe, and of the rival sects, which then sprang up at Borsippa, Orchoe, and elsewhere, some went so far as to reject as mendacious the very astrology which had been elaborated by their ancestors.[45] The most remarkable representative of this

rationalistic movement is Seleucus of Seleucia, who may be either a Greek emigrant or a hellenised native. Giving up the firmament of primitive cosmogonies, he opened the infinite spaces of a limitless universe to the courses of the stars. Recurring to a bold hypothesis of Aristarchus of Samos, and advancing new arguments in its support, he showed that the sun is the centre of the world, and that the earth has a double motion, revolving round the sun and spinning on its own axis; at the same time he offered a better explanation than any one had previously propounded of the movement of the tides, which no doubt he had observed in the Persian Gulf, by referring them to the phases of the moon. Copernicus, who by the formulation of his heliocentric theory produced "the greatest revolution in the history of knowledge," seems to have been ignorant even of the name of his distant forerunner.

But the scientific rationalism of this Galileo of antiquity was destined to be condemned. It was opposed by the force of a thousand-year-old tradition, the anxious superstition of the mob, the haughty convictions and temporal interests of a powerful sacerdotal caste. The future belonged to a compromise, which, while respecting those ancient beliefs to which the majority of mankind was invincibly attached, would satisfy the demands of a more comprehensive intelligence. This conciliatory formula was discovered by stoicism. Everywhere it devoted itself to the task of justifying popular worships, sacred narratives, and ritual observances. In Greece, it was able without much difficulty to come to terms with cults more formalistic than doctrinal, more civic than moral, in which no authority demanded assent to definite dogmas. A system of accommodating allegories could readily put on gods or myths a physical, ethical, or psychological interpretation, which reconciled them with the cosmology or ethics of the Porch. In the East, where more theological religions always implied a more definite conception of the world, the task appeared much less easy. Yet certain profound affinities reconciled stoicism with Chaldean doctrines. Whether these did or did not contribute to the development of the

ideas of Zeno, they offer a singular analogy to his pantheism, which represented ethereal Fire as the primordial principle and regarded the stars as the purest manifestation of its power. Stoicism conceived the world as a great organism, the "sympathetic" forces of which acted and re-acted necessarily upon one another, and was bound in consequence to attribute a predominating influence to the celestial bodies, the greatest and the most powerful of all in nature, and its Εἱμαρμένη or Destiny, connected with the infinite succession of causes, readily agreed also with the determinism of the Chaldeans, founded, as it was, upon the regularity of the sidereal movements. Thus it was that this philosophy made remarkable conquests not only in Syria but as far as Mesopotamia. I recall only the fact that one of the masters of the Porch, the successor of Zeno of Tarsus at Athens, was Diogenes of Babylon (*circa* 240-150) and that, later on, another distinguished Stoic, Archidemus, founded a famous school at Babylon itself (second century B.C.). We know too little of their theories to determine what place was held in them by the beliefs of the country of their origin or of their adoption. We only perceive the result of this movement of ideas which was to lead to the entry of astrology and star-worship into the philosophy of Zeno. For us the person who almost alone represents this fusion of East and West is Posidonius of Apamea, of whom we shall speak in our next lecture,[46] but the preparations for this fusion were undoubtedly made by his predecessors. It is remarkable that the great astronomer, Hipparchus, whose scientific theories, as we have just seen, are directly influenced by Chaldean learning, was also a convinced supporter of one of the leading doctrines of stellar religion. "Hipparchus," says Pliny,[47] "will never receive all the praise he deserves, since no one has better established the relationship between man and the stars, or shown more clearly that our souls are particles of heavenly fire." In this passage we see affirmed as early as the second century before our era a conception, the development of which we follow in the sidereal mysticism of the Roman period.[48]

Hipparchus saw the ruin of the country where was born that science which he illumined. Invaded by the Parthians about the year 140 B.C., recaptured by Antiochus VII of Syria in 130, reconquered soon afterwards by King Phraates, Mesopotamia was terribly ravaged for more than a quarter of a century. Babylon, sacked and burned in 125, never recovered her former splendour: a progressive decay brought on her a death by slow consumption. The new Iranian princes evinced no solicitude for the culture of Semitic priests. The vast brick-built temples, when the hand of the restorer was withdrawn, crumbled into dust, one by one were extinguished the lights of a civilisation which extended backwards for forty centuries, and of the famous cities of Sumer and Accad there survived little but the name. The last astronomical tablet in cuneiform characters with which we are acquainted, is dated 8 B.C., and Strabo, [49] speaking of Babylon about the same period, applies to it a verse from a comic poet: "a mighty desert--such is the mighty town."

Henceforth it is far from their native land, in Syria, in Egypt, and in the West, that we must follow the development of the religious ideas derived from the Chaldea of antiquity.

Lecture 3. The Dissemination In The West

We have seen the "Pan-Babylonist" mist, which obscured the historical horizon, vanish before the breath of criticism. It is not the fact that thousands of years before our era the Chaldeans constructed a learned and profound cosmology, which established its authority over all surrounding peoples. But their share in the intellectual and religious development of antiquity remains none the less most considerable. They are the creators of chronology and astronomy. They contrived to enlarge their theology progressively in order to keep it in harmony with their new conception of the world, and

their astrology was regarded as the method of divination *par excellence*. Their conquests in the realm of science won such prestige for their beliefs that they spread from the Far East to the Far West, and even now their sway has not been wholly overthrown. In mysterious ways they penetrated as far as India, China, and Indo-China, where divination by means of the stars is still practised at the present day, and reached perhaps even the primitive centres of American civilisation. In the opposite direction they spread to Syria, to Egypt, and over the whole Roman world, where their influence was to prevail up to the fall of paganism and lasted through the Middle Ages up to the dawn of modern times. It is this dissemination throughout the West that we shall rapidly describe in this lecture.

The exchange of religious ideas between the two rival empires of the valleys of the Euphrates and the Nile undoubtedly goes back, like their political relations, to a very remote antiquity. In the fifteenth century before our era, at the moment when--as the Tell-el-Amarna tablets show--Babylonian was the diplomatic language of the whole East, and Egypt extended its empire or its suzerainty over the principalities of Canaan and Syria, we find Amenophis IV ordaining the exclusive worship of the Sun as lord of heaven and earth, protector of his person and of his subjects of every nationality. It is possible that this theological Pharaoh was led by the influence of Semitic star-worship to impose his attempt at reform upon the Egyptian clergy. Many other proofs might be advanced to show that the beliefs and even the cults of the Syrians found their way into the state of the Pharaohs. But the religious ideas with which we are particularly concerned here were late in being introduced. Astrology was *unknown* in ancient Egypt: it was not until the Persian period, about the sixth century, that it began to be cultivated there. The ascendancy which it then acquired, succeeded in breaking down the haughty reserve of the proudest and most exclusive people in the world, and a conservative clergy was compelled to admit to its ranks calculators of hours and makers of

horoscopes (ὡρολόγοι, ὡροσκόποι) devoted to the study of Chaldean science. The history of this dissemination confirms what we said both about the late date of this religious development in Babylonia and about the irresistible prestige which the brilliant discoveries of astronomy conferred upon it from the Assyrian period onwards. This foreign religion was gradually naturalised in Egypt: the huge zodiacs, which decorated the walls of the temples, show how sacerdotal teaching succeeded in grafting the learned doctrines of the Chaldeans on native beliefs and in giving them an original development. National pride even ended by convincing itself that all this religious erudition was purely indigenous. About the year 150 B.C. there were composed in Greek--undoubtedly at Alexandria--the mystic treatises attributed to the fabulous king Nechepso and his confidant, the priest Petosiris, which became as it were the sacred books of the growing faith in the power of the stars. These apocryphal works of a mythical antiquity were to acquire incredible authority in the Roman world.

The god Tôt (Thoth), the Hermes Trismegistus of the Greeks, became in Egypt the revealer of the wisdom of horoscopers, as of all other kinds of wisdom. But it was a difficult task to reconcile astrology with national beliefs, as Hermetism sought to do. For, astrology was not only a method of divination: it implied, as we have said, a religious conception of the world, and it was inseparably combined with Greek philosophy. Thus the Hermetic books comprise not merely treatises on learned superstition: it is a complete theology that the gods teach to the faithful in a series of what may be called apocalypses. This recondite literature, often contradictory, was apparently developed between 50 B.C. and A.D. 150. It has a considerable importance in relation to the diffusion throughout the Roman Empire of certain doctrines of sidereal religion moulded to suit Egyptian ideas. But it had only a secondary influence. It is not at Alexandria that this form of paganism was either produced or chiefly developed, but among the neighbouring Semitic peoples.

Syria, lying as it does nearer than Egypt to Babylon and Nineveh, was more vividly illumined by the radiance of those great centres of culture. The ascendancy of an erudite clergy who ruled there, was extended at an early date over all surrounding countries, eastwards over Persia, northwards over Cappadocia. But nowhere was it so readily accepted as among the Syrians, who were united with the Oriental Semites by community of language and blood.

The very names Σύριοι, "Syrian," and Ἀσσύριοι, "Assyrian," are originally identical, and for a long time the Greeks made no distinction between them. The plains of Mesopotamia and Cœle-Syria, inhabited by kindred races, extended across frontiers which are not marked out by nature, and, despite all political vicissitudes, relations between the great temples situated east and west of the Euphrates continued without interruption.

It is difficult to fix the date at which the influence of the "Chaldeans" began to be felt in Syria, but it is certainly not later than the period when the dominion of the Sargonides was extended as far as the Mediterranean, that is to say, the eighth century B.C.; and without admitting, with the Pan-Babylonists, that the stories of Genesis are merely astral myths, we may regard it as indisputable that before the Exile (597 B.C.) Israel received from Babylon, along with some astronomical knowledge, certain beliefs connected with star-worship and astrology. We know that idolatry was repeatedly introduced into Zion. Thus king Manasseh caused the chariot of Shamash, the Sun-god, to be accepted there; he dared to set the "Queen of the Heavens" by the side of Iahweh. After the Exile, spiritual relations were continuous between Judaism and the great religious metropolis which had subjugated it. As late as the first century B.C., the author of the Book of Enoch, in his pretended revelations, is obviously inspired by Babylonian cosmology and legends.

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If Israel, which repulsed all forms of polytheism with such inflexible determination, nevertheless yielded temporarily to the prestige of star-worship, how much more effectively must this cult have established its sway over Semitic tribes which had remained pagan? Under its influence they are seen to adopt new divinities: Bel of Babylon was worshipped all over northern Syria. The ancient divinities also were grouped anew: At Hierapolis, as at Heliopolis and Emesa, a new member was added to the original pair, Baal and Baalat, husband and wife, in order to form one of those triads of which Chaldean theology was fond. But this theology profoundly modified, above all, the conception of the higher powers reverenced by these pastoral or agricultural tribes. Side by side with their proper nature, it gave to these gods a second personality, which became none the less prominent because it was borrowed, and sidereal myths came to be interlined, as it were, with agrarian myths and soon obliterated them. From being lords of a clan and a narrow district, the Baals were promoted to the dignity of universal gods. The old spirit of storm and thunder, Baal Shammin, who dwelt in the sky, becomes the Most High (Ὑ ʾ ψιστος), the eternal regulator of cosmic movements.[50] The naturalistic and primitive worship which these peoples paid to the Sun, the Moon, and certain stars such as Venus, was systematised by a doctrine which constituted the Sun--identified with the Baals, conceived as supreme gods--the almighty Lord of the world, thus paving the way in the East for the future transformation of Roman paganism.[51]

There can be no doubt that Babylonian doctrines exercised decisive influence on this gradual metamorphosis and this latest phase of Semitic religion. The Seleucid princes of Antioch showed as great deference to the science of the Babylonian clergy as the Persian Achæmenids had done before them. We find Seleucus Nicator consulting these official soothsayers about the propitious hour for founding Seleucia on the Tigris; and, if we may believe Diodorus,[52] these diviners made to Alexander, Antigonus, and numerous other monarchs predictions which were fulfilled to the letter. Antiochus, king

of Commagene, who died in 34 B.C., built on a spur of Mount Taurus, commanding a distant view of the Euphrates valley, a sepulchral monument on which, side by side with the images of his ancestral gods, he set the scheme of his nativity figured on a large bas-relief,[53] because his life had realised all the promises of this horoscope. The cities of Syria often stamp on their coins certain signs of the zodiac to mark the fact that they stood under their patronage. If princes and cities thus acknowledged the authority of astrology, we may imagine what was the power of this scientific theology in the temples. We may say that in the Alexandrine age it permeated the whole of Semitic paganism.

But in the empire of the Seleucids alongside of this "Chaldaism," if I may venture to use the term, Hellenism had established itself in a commanding position. Above the old native beliefs the doctrines of Stoicism in particular exercised dominion over men's minds. It has often been observed that the masters of the Stoic school are for the most part Orientals. Zeno himself was born at Kition in the island of Cyprus. Among his successors Chrysippus and others belonged to Tarsus in Cilicia. Diogenes of Babylon, Posidonius of Apamea, Antipater of Tyre--to mention only the leading representatives of these doctrines--were all Syrians. In a certain sense it may be said that Stoicism was a Semitic philosophy. Given the fact that it was always the first care of this school to reconcile itself with established cults, it is *a priori* certain that Oriental star-worship did not remain foreign to its system. Had we a more precise knowledge of Asiatic civilisation during the Hellenistic period, we should be able to estimate more exactly what Zeno and, above all, his disciples owed to Chaldean theology and what it owed to them. We have already touched upon this point.[54] As it is, we cannot follow the development of this movement of ideas, which was definitively to introduce astrology together with star-worship into the philosophy of the Stoa. The thinker who is almost the sole representative we have of these syncretic tendencies, despite the fact that they must

certainly have shown themselves long before him and abundantly around him, is Posidonius of Apamea.

Of the man himself we know almost nothing. Born at Apamea in the valley of the Orontes about 135 B.C., after long travels in pursuit of his studies, which took him as far as Gades (Cadiz), he settled in the island of Rhodes, whither his teaching attracted large numbers of Greeks and Romans, and he died at the age of eighty-four after an active career which filled the whole of the first half of the first century. Was he a pure Syrian, like Porphyry and Iamblichus in later times, or a descendant of the Macedonian conquerors? Was his mother-tongue Greek or Aramaic? We should like to know, but we are in total ignorance about the surroundings amid which this great man grew up; we know nothing of his society, nothing even of his education, except that he was the pupil of the Stoic Panætius.

But it is clear that this master, who in his time exercised a real intellectual sovereignty, owed it above all to the extent of his knowledge and the largeness of his comprehension. A native of the very heart of Syria, but naturalised as a Rhodian, Posidonius represented in all its fulness the alliance of Semitic tradition with Greek thought. He was the great intermediary and mediator not only between Romans and Hellenes, but between East and West. Brought up on Plato and Aristotle, he was equally versed in Asiatic astrology and demonology. If he is Greek in the constructive power of his speculative genius, in the harmonious flow of his copious and highly-coloured style, his genius remained Oriental in the singular combination of the most exact science with a fervent mysticism. More of a theologian than a philosopher, in mind more learned than critical, he made all human knowledge conspire to the building up of a great system, the coping of which was enthusiastic adoration of the God who permeates the universal organism. In this vast syncretism all superstitions, popular or sacerdotal, soothsaying, divination, magic, find their place and their justification; but above all it was

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due to him that astrology entered into a coherent explanation of the world, acceptable to the most enlightened intellects, and that it was solidly based on a general theory of nature, from which it was to remain henceforth inseparable.

The almost total loss of the works of Posidonius prevents us from appreciating, save in an imperfect manner, the persuasive force of his teaching. But the echo of his words resounded far through the Roman dominion, where his authority balanced that of Epicurus. In his school at Rhodes he had long been the master of the masters of the world,--Pompey listened to him, Cicero attended his lectures,--and his influence on the development of later theology was immense in several directions. His pupil, Cicero, has frequent reminiscences of his teaching and translates his ideas into Latin. The symbolism of Philo the Jew is often inspired by his picturesque eloquence. Still later his ideas pass into and spread throughout the Stoic school--we see them, for instance, in the works of Seneca,--and they are echoed in the treatises of the astrologers of the imperial age.

The most striking of the literary productions which he inspired is the *Astronomics* of the so-called Manilius, a writer of whom we know absolutely nothing, not even his name, which is corrupt in the manuscripts, but who was in his own way a genuine poet: A work of remarkable inspiration, where the brilliance of the descriptions blooms in the wilderness of a dry "mathematic," where a passionate enthusiasm for the marvels of science makes us forget that this science is false, where lofty intellectual ambitions and an unbounded confidence in the power of reason are combined with a blind and puerile credulity which accepts all predictions derived from the stars,--this work reveals to us better than any other the grandeur of such a system of the world as that conceived by Posidonius and the attraction which was exercised by this learned cosmology, sustained by a mystic faith in astrology, the revealer of the future.

The poem is dedicated to Tiberius, who perhaps suggested its composition, and some have proposed to see in it "the expression of the official religion of the

age."[55] Obviously the first Cæsars, even more than the old republican aristocracy, among whom Posidonius counted so many disciples, would be inclined to adopt the ideas of one who broke with the old national particularism, in order to include the worships of all races in one vast synthesis, and appeared to give to the united Empire the formula of the theology of the future. Characteristically enough, Augustus as well as Tiberius had already been converted to astrology, and we shall see how the later princes granted an official protection to sidereal religion.

With the same movement of ideas, which was initiated or represented by Posidonius, was connected the revival of a strange sect, that of the Neo-Pythagoreans, which re-appeared in the East during the first half of the first century before our era. Although by its ideal of religious life it professed to connect itself with the old Pythagorean mysticism, its doctrine owes more to the theories developed by Posidonius, especially in his commentary on the *Timaeus*, and it borrowed much, either through the medium of the great Syrian or even directly, from Oriental religions. A marked dualism, which contrasts the soul with the body, and, as a consequence, a moral asceticism, a doctrine of the eternity of the universe and of the influence of the stars on the constant changes of the sublunary world, a belief in airy demons who defile and torment mankind, but above all--and this is the central point and the core of its dogmatic system--a symbolism of numbers, to which is attributed an active force and a mystic power, all these essential features indicate a singularly close connection between Neo-Pythagorism and "Chaldean" theology. It is characteristic that the man who first revived at Rome the old South-Italian philosophy, Nigidius Figulus, the friend of Cicero, displays a curious interest in magic and in occult lore, and an ardent devotion to astrology, and that he was the first to expound in Latin the significance of the "barbaric sphere," that is to say, a series of constellations not recognised by the Greek astronomers but adopted in Oriental uranography.[56]

But these groups of cultured theosophists addressed them-selves only to limited circles of "intellectuals." In a general way the new sidereal religion was from the first welcomed by the upper classes: it was cultivated by the aristocracy both of blood and of intellect. If it had continued to be preached only by polytheistic theorists, it would have remained, as in Greece, the exclusive preserve of a few speculative minds. Even the inspiration of a semi-official poet like Manilius would hardly have won for it the favour of the imperial court. And yet it achieved a widespread popularity. Its influence over the masses it did not owe to a literary diffusion, whatever may have been the success of certain romances which were inspired by it, such as the life of Apollonius by Philostratus and, still more, the *Ethiopics* of Heliodorus. It had in its service other missionaries, whose active propagandism spread it through the mixed populace of the towns as well as among the hosts of slaves who tilled the country estates. These popular propagandists were the clergy and the devotees of Oriental cults.

Towards the commencement of our era, when the peace and unity of the ancient world was assured by the foundation of the Empire, began the development of this great religious movement which little by little was to orientalise Roman paganism. The gods of the nations of the Levant imposed themselves, one after another, on the West. Cybele and Attis were transported from Phrygia, Isis and Serapis travelled thither from Alexandria. Merchants, soldiers, and slaves brought the Baals of Syria and Mithra, an immigrant from the heart of Persia. We have attempted in another volume to show in what respects each of these foreign cults enriched the creeds of Rome.[57] The point which I desire to emphasise here, is that all of them, no matter what their origin, were influenced in different degrees by astrology and star-worship. These doctrines, as we have seen, grew up among the temples of Syria and Egypt, and transformed the theology of these countries more and more. Originally the mysteries of Isis and Serapis, established under the first Ptolemy, allowed them only a limited place, but in the time of

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Nero his teacher Chæremon, a priest of Alexandria and a Stoic philosopher, re-discovered in the religion of Egypt the worship of the powers of nature and, in particular, of the stars, and found again in prayer a means of rescuing men from the fatality which the influence of the heavenly bodies imposed upon them. Even in Asia Minor, where the sidereal cult is adventitious and recent, a member of a considerable family of Phrygian prelates is found celebrating in verse the sidereal divination which enabled him to publish far and wide infallible predictions. Attis, the Anatolian deity of vegetation, ended by becoming a solar god, just like Serapis, the Baals, and Mithra. In very early times, even in Mesopotamia, star-worship was imposed upon Persian Mazdaism, which was still a collection of traditions and rites rather than a body of doctrines, and a set of abstruse dogmas came to be super-imposed on the naturalistic myths of the Iranians. The mysteries of Mithra imported into Europe this composite theology, off-spring of the intercourse between Magi and Chaldeans; and the signs of the zodiac, the symbols of the planets, the emblems of the elements, appear time after time on the bas-reliefs, mosaics, and paintings of their subterranean temples. We find one of the members of their clergy proclaimed in his epitaph at Milan *studiosus astrologiae*.[58] The priests of the Persian god and those of the so-called "Jupiters" of Syria contributed largely to the triumph of this pseudo-science, which towards the age of the Severi acquired an almost undisputed supremacy even in the Latin world.

Here it no longer presents itself as a learned theory taught by mathematicians, but as a sacred doctrine revealed to the adepts of exotic cults, which have all assumed the form of mysteries. The doctrine which is thus communicated to the initiated in the dim light of temples, undoubtedly remained more sacerdotal than, for instance, the *Tetrabiblos* of Ptolemy, a dry didactic treatise which could never have fostered any devotion. Here more room was left for mythology, mysticism, ethics, and superstition. This theology, however, had not escaped the prevailing ascendancy of Greek philosophy, any more

than had the ideas of the most learned casters of nativities,--this is a fact which research has succeeded in proving. In reality these mysteries, which professed to be the depositaries of an ancient tradition imported from the Far East, constantly modified their teaching, in order to adapt it to altered times and environments; and if the wisdom which they revealed was always regarded as divine, it nevertheless varied remarkably in the course of ages and admitted ideas entirely foreign to its original content. This was a necessary consequence of the close union of learning and belief which, as we have said, characterises Oriental religions. They were always the expression of a given conception of the world, which determined the relations of heaven and earth and the duties of the faithful towards the gods. Hence they were bound to change in conformity with the evolution of physical or metaphysical ideas. If Greek thought could receive certain impulses or suggestions from the temples of Syria and Egypt, it invaded them in turn as a conqueror: and Stoicism in particular certainly gave to them more than it received from them. The great intellectual movement of which Posidonius was not so much the initiator as the most illustrious representative, undoubtedly combined devotion and philosophy, but it also introduced philosophy into devotion. The learned and mystic system of doctrine, which Manilius and others preached under Tiberius, imposed itself on all Western paganism in the course of the following centuries; and we may say, making allowance for certain modifications, that this half-scientific, half-religious system, which was established in the Alexandrine period, continued to be the theology of the mysteries up to the time of their disappearance, even after the advent of Neo-Platonism.

As a characteristic production of this medley of ideas may be quoted those *Chaldean Oracles*,[59] whose origin is still a mystery, but which appear to have been compiled in the second century of our era. In these works of fantastic mysticism, in which the whole Neo-Platonic school saw the revelation of supreme wisdom, ancient beliefs of Semitic

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star-worship are combined with Hellenic theories. They are to Babylon what the Hermetic literature is to Egypt.

Thus the triumph of Oriental religions was simultaneously the triumph of astral religion, but to secure recognition by all pagan peoples, it needed an official sanction. The influence which it had acquired among the populace, was finally assured when the emperors lent it an interested support. That apotheosis by which from the beginning of the principate deceased princes were raised to the stars, is inspired both in form and spirit by Asiatic doctrines. We have seen that already Augustus and especially Tiberius allowed themselves to be converted to the ideas of the disciples of Posidonius. But they remained hostile to the popular forms of foreign worships, at least in their capital. Their ideal, which was entirely political, is the restoration of the old Roman faith and respect for the purely practical cult of the city. But in proportion as Cæsarism became more and more transformed into absolute monarchy, it tended more and more to lean for support on the Oriental clergy. These priests, loyal to the traditions of the Achæmenids and the Pharaohs, preached doctrines which tended to elevate sovereigns above mankind, and they supplied the emperors with a dogmatic justification of their despotism. For the old principle of the sovereignty of the people, the original form of Cæsarism, was substituted a reasoned belief in supernatural influences. The emperor is the image of the Sun on earth, like him invincible and eternal (*invictus*, *aeternus*), as his official title declares. Already in the eyes of the Babylonians the Sun was the royal planet, and it is he that in Rome continues to give to his chosen ones the virtues of sovereignty, and destines them for the throne from the time of their appearance on earth. He remains in close communion with them, he is their companion (*comes*) and their congener, for they are united by community of nature. It may be said that they are consubstantial; and in the third century the monarch was worshipped as “god and master by right of birth” (*deus et dominus natus*), who had descended from heaven by grace of the Sun, and by

his grace will reascend thither again after death. The idea that the monarch's soul, at the moment when destiny caused it to descend to this world, received from the Star of the day its sovereign power, led to the inference that he participated in the might of this divinity, and was its representative on earth. Thus it is noticeable that the princes who proclaimed most loudly their autocratic pretensions, a Domitian or a Commodus, were also those who most openly favoured Oriental cults.

These cults attained the zenith of their power when the advent of the Severi brought them the support of a half-Syrian Court. For nearly half a century, from A.D. 193 to 235, the Empire was governed by a family of Emesa, an ancient sacerdotal state, where on the edge of the Syrian desert rose the splendid temple of Elagabalus. Intelligent and ambitious princesses, Julia Domna, Sohæmias, Mæsa, and Mammæa, whose intellectual ascendancy was so considerable, became missionaries of their national religion. Officials of all ranks, senators and officers, rivalled each other in devotion to the gods who protected their sovereigns and were protected by them. You all know the bold proclamation of A.D. 218 which set upon the throne a boy of fourteen years, priest of Elagabalus, whose name he bore. The Greeks named him Heliogabalus in order to recall the solar character of this god. To this barbarous divinity, hitherto rather obscure, he sought to give the primacy over all the others. Ancient authors relate with indignation how this crowned priest desired to elevate the black stone of his god, a rude idol brought from Emesa, to the rank of sovereign divinity of the Empire, subordinating the entire pantheon of antiquity to *Sol Invictus Elagabal*, as he is termed in inscriptions. The attempt of Heliogabalus to establish in heaven a kind of solar monotheism corresponding to the monarchy that ruled on earth, was doubtless too violent, tactless, and premature: it miscarried and provoked the assassination of its author.

But it corresponded to the aspirations of the day and it was renewed half a century later, this time with complete success. In 274, Aurelian was inspired with the same idea, when

he created a new cult of the "Invincible Sun." Worshipped in a splendid temple, served by pontiffs who were raised to the level of the ancient pontiffs of Rome, celebrated every fourth year by magnificent games, *Sol Invictus* was definitively promoted to the highest rank in the divine hierarchy and became the official protector of the Sovereigns and of the Empire. The country in which Aurelian discovered the model which he sought to reproduce was Syria, where he had won a decisive victory over the famous queen Zenobia: he placed in his new sanctuary the images of Bel and Helios, which he captured at Palmyra. In establishing this new State cult, Aurelian in reality proclaimed the dethronement of the old Roman idolatry and the accession of Semitic Sun-worship.

With Constantius Chlorus (A.D. 305) there ascended the throne a solar dynasty which, connecting itself with Claudius II Gothicus, a votary of the worship of Apollo, professed to have *Sol Invictus* as its special protector and ancestor. Even the Christian emperors, Constantine and Constantius, did not altogether forget the pretensions which they could derive from so illustrious a descent, and the last pagan who occupied the throne of the Cæsars, Julian the Apostate, has left us a discourse in which, in the style of a subtle theologian and a fervent devotee, he justifies the adoration of the King Star, of whom he considered himself the spiritual son and heaven-sent champion.

If in conclusion we survey at a glance the whole course of the expansion which we have tried to describe, we shall be struck with the power of this sidereal theology, founded on ancient beliefs of Chaldean astrologers, transformed in the Hellenistic age under the twofold influence of astronomic discoveries and Stoic thought, and promoted, after becoming a pantheistic Sun-worship, to the rank of official religion of the Roman Empire.

Preached on the one hand by men of letters and by men of science in centres of culture, diffused on the other hand among the bulk of the people by the servitors of Semitic, Persian or Egyptian gods, it is finally patronised by the emperors, who find in it at once a

form of worship suitable for all their subjects and a justification of their autocratic pretensions.

In this way the astrological conception of life and of the world permeated the whole of society, and in particular produced a revolution in the beliefs of the Latin world. Despite all the speculations of metaphysicians, the masses had remained on the whole true to the old idolatry of the Republican period. Oriental theology led to the prevalence of a more lofty idea of God.

In the declining days of antiquity the common creed of all pagans came to be a scientific pantheism, in which the infinite power of the divinity that pervaded the universe was revealed by all the elements of nature. In the following lectures we shall have to examine more closely this conception of the world, the theology which was bound up with it, and the moral and eschatological ideas which were derived from it.

Lecture 4. Theology

Posidonius defined man as "the beholder and expounder of heaven."[60] Nature itself--the ancients vied with each other in insisting on this point--destined him to contemplate the sky and to observe its perpetual motions. Other animals bend towards the earth, but man proudly raises his eyes to the stars,--this is an idea which we find repeated time after time. His eye, the marvel of the human body, tiny mirror in which immensity is reflected, gateway of the soul open towards the infinite, follows from here below the distant evolutions of the celestial armies. The old astronomers, who did not use the telescope, marvelled at the power of the eye, and the ancients expressed their astonishment at the range of vision which reached the remotest constellations. They give it the pre-eminence over all the other senses, for the eyes are to them the intermediaries between the sidereal gods and human reason. Struck by the light from

on high, the power of sight devotes itself to following the motions of these radiant bodies, which move above us. It ascertains that the course of the sun, which occasions the changes of the seasons, the phases of the moon, the rising and the setting of the fixed stars, even the march of the planets which appear to be wandering stars, are all regulated by immutable laws, and are reproduced in accordance with invariable periods of time. In heaven there are never derangements or errors, there nothing moves without design. Reason, reflecting on the marvellous phenomena which are perceived by the eye, realises that they cannot be due to chance or to the action of a blind force, but recognises that they are ruled by a divine intelligence. The ceaseless harmony of movements so diverse is inconceivable without the intervention of a guiding Providence. The stars themselves prove to us their divinity so clearly that to fail to see it is to be incapable of seeing anything. Nobody could deny to the heavenly bodies the possession of reason without being himself destitute of it: that at least is the opinion of Cicero.[61] The view of the starry heaven thus led to astronomy and to philosophy, which are the queens of the sciences, the one in the domain of the visible, the other in the domain of ideas; and the study of these is the noblest employment to which man can put his faculties.

We have seen that since the days of Plato and Aristotle, and even earlier,[62] Greek thinkers proved the divinity of the stars by the character of their movements, and in a general way all metaphysicians point to the order of nature as proving the existence of God. Voltaire himself in the *Philosophical Dictionary* uses expressions on this subject which would not have been disowned by the ancients. But what characterises ancient ideas is the fact that they closely connect belief in the gods with observation of the sky. Astronomy here serves as an introduction to theology. This sidereal religion, developed by an erudite clergy, has always retained the stamp of its learned origin.

The essential quality of these sidereal gods, the one most frequently insisted upon, is that they are everlasting. We have seen that astronomy had led the old Chaldeans to this notion.[63] The invariability of the revolutions of the heavenly bodies led to the conclusion that they were eternal. The stars unceasingly pursue their never-ending course; arrived at the limit of their path, they resume without pause the race already run, and the cycles of years, in accordance with which their movements take place, are prolonged to infinity in the past, and continue to infinity in the future. Thus a clergy of astronomers necessarily conceived the gods of heaven, as being "the masters of eternity," or "those whose name is praised to all eternity,"--these titles are constantly bestowed in inscriptions on the Syrian Baals. The stars which the Syrians worshipped did not die, like Osiris in Egypt, or Attis in Asia Minor: each time they seemed to sink, they were born again to a new life, always unconquerable. This theological notion penetrated with astrology into Roman paganism. As often as a dedication is found to a *deus Aeternus*, it refers to a sidereal, most frequently a Syrian, god. The epithet *aeternus* completes and explains that of *invictus*, which, like the former, is applied to the stars in general, and specially to the Sun. These celestial powers always issue triumphantly from their strife with darkness; unceasingly menaced, they have been, are, and shall be ever victorious.

It is a remarkable fact that it is not until the second century of our era that this qualifying epithet *aeternus* comes into use in ritual at the same time as the cult of the god Heaven (*Caelus*) spreads. In vain had philosophers long set the First Cause beyond the limitations of time: their theories had not made impression on the popular mind, nor had they succeeded in modifying the traditional formulary of liturgies. For the multitude, divinities remained beings more beautiful, more vigorous, more powerful than men, but born like them and preserved only from decay and death. Semitic priests popularised throughout the Roman world the idea that God is without beginning and without end,

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and so contributed, side by side with Jewish proselytism, to invest with the authority of a religious dogma what had hitherto been but a metaphysical theory.

The importance attached to this idea enables us to understand that it was applied even to gods living upon the earth, in whom an image or manifestation of the sun was seen. The emperors, whose soul has descended to earth from heaven above, and is to re-ascend thither after death, are called, from the second century onwards, not only *invicti* but *aeterni*, like the stars to which they are united by identity of nature. This expression was introduced into the official vocabulary, and ultimately a sovereign was addressed as "Your Eternity," almost as naturally as we say "Your Majesty," although that epithet, applied to the short-lived princes who, in the third century, flit across the throne like shadows across a screen, seems almost cruelly ironical.

This, however, is but a political caricature of a great religious idea,--an idea which appealed to the imagination, and which poetry also adopted. Manilius[64] contrasts the permanence of the heavens with the frailty of earthly things:

Thrones have perished, peoples passed from dominion to slavery, from captivity to empire, but the same months of the year have always brought up on the horizon the same stars. All things that are subject to death are also subject to change, the years glide away, and lands become unrecognisable, each century transforms the features of nations, but Heaven remains invariable, and preserves all its parts; the flight of time adds nothing to them, nor does age take aught from them. It will remain the same for ever, because for ever it has been the same. Thus it appeared to the eyes of our forefathers, thus will our descendants behold it. It is God, for it is unchangeable throughout the ages.

Men did not stop there, but separating eternity from the stars and from heaven, whose loftiest quality it was, they adored that eternity itself as a divinity. Here is not a mere

abstraction, like Equity or Clemency or one of the many other abstractions which the Romans had conceived and fervently worshipped, notwithstanding the fact that they figured *Aeternitas* on their coins. The path which led to this worship is more intricate, and its beginnings go back to a very early stage of thought. Time, when this notion, which is lacking among many savages, appeared, was not defined as a conception of the reason, or in Kant's phrase, "*a priori* form of conception." This is a being who has an existence *per se*, who is even regarded sometimes as a material body, and who is endowed with an activity of his own. "Zeno," says Cicero,[65] "attributed a divine power (*vis divina*) to the stars, but also to the years, the months, and the seasons." We have here a very ancient belief, which is found for instance in Egypt. The magic idea of a power superior to man is connected, from the very beginning, with the notation of time Calendars had a religious before acquiring a secular significance: their original object was not to secure the measurement of the gliding moments, but to indicate the recurrence of propitious or unpropitious dates separated by periodic intervals. It is an empirical fact that the return of fixed moments is associated with the appearance of certain phenomena: it is easy to believe that the one is the cause of the other. They have therefore a peculiar efficacy, a sacred character.[66] Astronomy fixed the duration of these periods with an ever-increasing accuracy: it not only distinguished the sequence of days and nights, but also that of the months, corresponding to the revolutions of the moon, and that of the years, corresponding to those of the sun. Its progress led to a division of the day into two periods of twelve hours each. All these durations continued to be regarded as having a definite influence, as being endowed with a magic potency, and astrology sought to codify these activities, by placing each division of time under the protection of a star in its system of "chronocratories."

When the idea of an Eternity arose, more vast than the sum-total of years and centuries, it was regarded likewise as a divinity. "General opinion," says Proclus,[67] "makes the

Hours goddesses and the Month a god, and their worship has been handed on to us: we say also that the Day and the Night are deities, and the gods themselves have taught us how to call upon them. Does it not necessarily follow that Time also should be a god, seeing that it includes at once months and hours, days and nights?"

In fact infinity of Time was elevated to the dignity of Supreme Cause not only by individual thinkers, but by Oriental cults. You all know by name Zervan Akarana, "Time Unlimited," which a sect of Persian Magi regarded as the First Principle. This doctrine, which was developed in Mesopotamia, was adopted by the mysteries of Mithra and passed with them into the West, where this god was represented in the form of a monster with the head of a lion, to indicate that he devours all things. As might have been expected, the worship of Time was there closely combined with that of "the eternal Heaven" (*Caelus aeternus*), whose revolutions marked its everlasting course, and, as the master of all things, it was sometimes identified with Destiny, whose irresistible activity was exerted to produce the endless motion of the stars.

Each portion of Infinity brings on some propitious or unpropitious movement of the heavens, which is anxiously watched, and these motions incessantly modify the earthly world. The Centuries and the Years, each subject to the influence of a star or a constellation, the Seasons which are related to the four winds and to the four cardinal points, the twelve Months over which the signs of the zodiac preside, the Day and the Night, the twelve Hours, are all personified and deified, as being the authors of all the changes of the universe.

The allegorical figures invented by astrological cults to represent these abstractions came into common use under the Empire. This symbolism did not even die out with idolatry: it was adopted by Christianity, in spite of the fact that it was in reality contrary to its spirit, and up to the Middle Ages these symbols of the fallen gods were

reproduced *ad infinitum* in sculpture, mosaics, and miniatures, and it may be said that the old superstitions of the Chaldeans are still perpetuated by modern art.

Like the divisions of Time, numbers were divine for a similar reason. The ancients said that they had been revealed to mankind by the motions of the stars.[68] In fact the progress of mathematics must often have been a result of the progress of astronomy, and the former participated in the sacred character of the latter. Certain numerals were thus considered for astronomical reasons as endowed with an especial potency: seven and nine, which are the fourth and the third part of the month, seven again and twelve, because they correspond to the planets and to the signs of the zodiac, three hundred and sixty, because that was the--approximate--number of days in the year. To these figures was attributed a peculiar efficacy; thus it was necessary in magical incantations to repeat the operative formula for a given number of times in order that it might produce the desired effect. Mathematics also entered largely into astrological divination,--*mathematici* is in Latin a synonym of *Chaldaei*,--and they served as a foundation or a pretext for a subtle and extravagant symbolism. Thus very often a name is replaced by a numerical equivalent, that is, by the sum-total of its letters considered as figures and added together. But despite these uses and abuses, connected with sidereal religion or, at least, superstition, there is a great difference between numbers and the divisions of Time: the former might be sacred, they could never be deified, they were not worshipped, nor were artistic representations of them imagined.

What has been said brings out the importance attached by the adepts of star-worship to the idea of divine eternity,--an importance shown by the fact that some had actually made it the supreme principle of their religion. But there was another divine attribute correlative to the former. The stars are not only eternal gods, but also universal, their power is unlimited in space as in time. Already in Syria the Baals, who had become solar deities, bore the title of *Mar'olam*, which may be translated "Lord of the Universe" as

well as “Lord of Eternity,” and men undoubtedly liked to claim for them this double quality.[69] With earthly *genii* or demons, who protected definite spots, were contrasted the celestial gods, who are “catholic.” This word, which was to have such a great destiny, was at first merely an astrological term: it denoted activities which are not limited to individuals, nor to particular events, but apply to the whole human race and to the entire earth.

Everything is, in fact, subject to the changes brought about by the revolutions of the stars. All the events of this world are determined by sidereal influences. The transformations of nature, like the dispositions and actions of man, are due to the fatal energies which reside in the sky. Hence necessarily follows not only the idea of the universality, but also that of the omnipotence, of the sidereal deities. The Semitic cults spread throughout the Latin world the conception of the absolute, unlimited sovereignty of God over the earth. Apuleius of Madaura calls the Syrian goddess “*omnipotens et omniparens*,” all-powerful and all-producing.

But here we must make a distinction: if all the gods are equally everlasting, all cannot be universal and omnipotent in the same degree. Undoubtedly Destiny holds sovereign sway over the whole world, and the celestial orbs by their combined movements are the authors of all that was, and is, and is to come. But this unlimited power only belongs properly to the ensemble of the cosmic harmony. It resides in the Whole regarded as divine, it manifests itself to a greater or less degree in its different parts. Perhaps you remember the opening of Dante’s *Il Paradiso*:

La gloria di colui che tutto muove
Per l’ universo penetra e risplende
In una parte più e meno altrove.
Nel ciel che più della sua luce prende,
Fu’ io. . .

The poet of the Middle Ages is only expressing here an astrological notion. The starry heaven is the principal seat of the divine energy and light which are spread throughout the world. But all the stars have not an equal share of its power: only some among them, or even one among them, can properly be called "catholic" and omnipotent (παντοκράτωρ). We proceed to pass in review these various divinities.

The highest of these gods is Heaven (Οὐρανός, *Caelus*), "*Summus ipse deus*," says Cicero,[70] "*arcens et continens ceteros*," that is to say, the heaven of the fixed stars, which embraces all the other spheres. The divine Power which there resides, and which causes it to move, was sometimes in the West identified with Bel,--that is to say, with Zeus,--and in Latin lands was invoked under the title of "*Optimus Maximus Caelus Aeternus Iupiter*." The movement of this heaven was a continuous revolution, not a motion forwards and backwards like that of the planets, and, assigning a moral sense to the word ἀπλανής, men said that since it did not *wander* or *err*, therefore it was not subject to error, and that this infallibility was a proof of its divinity. Certain theologians, associating this with infinite Time, represented Heaven as the supreme power of the world.

The vast orb of the sky was deified in its whole, and in its parts. Its two portions, alternately dark and luminous, were worshipped under the form of the Dioscuri. The sons of Tyndareus, according to the Greek legend, shared in turn life and death, and they became in the eyes of theologians the personification of the two hemispheres.

But each of the constellations, each star which glittered in the eternal vault, was equally divine. Each had its myth. As we have already said,[71] the traditional figures which we reproduce on our celestial charts, are the fossil remains of a luxuriant mythological vegetation. The sidereal monsters, to which potent virtues were attributed, were the residuum of a number of forgotten beliefs. Worship of animals had been abandoned in temples, but the Lion, the Bull, the Eagle, the Fishes, which Oriental imagination had

recognised in the capricious grouping of the stars, continued to be considered sacred. Old totems of Semitic tribes or of Egyptian nomes survived in the form of constellations. Heterogeneous elements, borrowed from all the religions of the East, were combined in ancient uranography, and in the power attributed to the phantoms which it conjured up was repeated the echo of old-fashioned worships, which frequently remain unknown to us.

Then came the Greeks, who professed to piece these celestial beings on to their national religion. They succeeded in adorning the sky without troubling themselves very much to distinguish their own inventions from those which they received from a foreign tradition. "Catasterism," that is "translation to the stars," was a convenient method of giving an astronomical termination to ancient fables. Thus poetical tales, which were only half believed, represented fabulous heroes and even members of human society as living on high in the form of glittering constellations. There Perseus found Andromeda again, and the centaur Chiron, who is none other than the Archer, fraternised with Orion, the gigantic hunter. "The Ram was the famous ram with the Golden Fleece which had carried off Phrixus and Helle over the sea and had let the maiden fall into the waves of the Hellespont. It might also be that which was the subject of the dispute between Atreus and Thyestes, or again it might be the ram which guided the thirsty company of Bacchus to the wells of the oasis of Ammon."[72]

But this patch-work assemblage of heroes, animals, and sacred objects was scarcely worshipped save *en bloc*. Particular veneration was bestowed on twelve constellations to which the most potent influence over destiny was attributed, namely, the twelve signs of the zodiac. Astrological treatises are full of details concerning their qualities; and their influence, which results sometimes from their astronomic nature, sometimes from the mythical character which was bestowed upon them, was exerted especially during the month over which each presided, and their images figure in large numbers on the

monuments of pagan worship, particularly on those of the mysteries of Mithra. Further even than this, since each sign of the zodiac was divided into three decans, a god was imagined for each of these thirty-six compartments of the heaven.

Not only were the stars of heaven an object of worship, but also the subtle substance which lit their fires, the Ether which filled the lofty spaces of the heavens. Sacrifices were offered to it, or it was celebrated in hymns as the source of all brightness, and the worshippers even dedicated inscriptions to this pure and serene air that it might chase away the devastating hail.

Into the sphere of the fixed stars, which marks the bounds of the world, are fitted seven other spheres, those of the planets, which are, in order, Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon. The qualities and influences which are attributed to them are due sometimes to astronomical motives. They are deduced from their apparent movements as discovered by observation. Saturn makes people apathetic and vacillating, because, being farthest from the earth, it appears to move most deliberately. But most frequently the reasons assigned are purely mythological. The planets, being identified with the divinities of Olympus, have borrowed their nature. Mars, Venus, Mercury, have a history known to all: the mere mention of their names is enough to explain their action: Venus needs must favour lovers, and Mercury assure success in business and swindling. This double conception of planetary divinities, of whom now one, now the other, displays the activities, favourable or destructive, which are attributed to them, corresponds to the hybrid origin of astrology, which pretends to be a science but always remained a creed, and is found again also, to a lesser degree, in the doctrines concerning fixed stars.

But, like the Olympians who were identified with them, the planetary gods are much the most powerful of all. Their positions in the sky, their reciprocal relations or, to use the technical term, *aspects*, have a decisive influence on all physical and moral phenomena

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of this world. They exercise a manifold patronage, more diverse and more extensive than that of the gods of Olympus and the saints of Paradise. They are the tutelary deities not only of the series of days,[73] but of that of the hours, and even of centuries and millenaries. To each was attached a plant, a metal, a stone, which derived miraculous powers from this special protection. Each presided over a period of life, a portion of the body, and a faculty of the soul, possessed a colour and a taste, corresponded to one of the vowels. These various relations in which they were supposed to stand to the whole of nature, afforded numerous opportunities for paying them worship. As we shall see in another lecture,[74] their worship was much more popular than that of the other sidereal gods, and their images are reproduced on monuments with much greater frequency.

Beneath the lowest sphere, that of the moon, the zones of the elements, are placed in tiers: the zones of fire, air, water, and earth. To these four principles, as well as to the constellations, the Greeks gave the name of στοιχεῖα, and the Chaldeans already worshipped the one as well as the other. The influence of Oriental religions, like that of Stoic cosmology, spread throughout the West the worship of these four bodies, believed to be elements, whose infinite variety of combinations gave rise to all perceptible phenomena. In the mysteries of Mithra, a group, frequently reproduced, in which a lion represented fire, a bowl water, and a serpent the earth, figured emblematically the strife of these gods, at the same time kindly and hostile, which constantly devoured each other, and whose perpetual opposition and transmutation brought about all the changes of nature. By the end of the pagan period, the divinity of these physical agents was a religious principle accepted by all heathendom. Consequently, by a piquant contrast, the conventional representations of these polymorphous substances, which antique sculpture had rarely chiselled, were multiplied at the very moment when Christianity was robbing them of their sacred character.

These elements were not only deified: they were themselves haunted by formidable powers; especially the zone of air, which envelops the earth, was the chosen home of demons, kindly or malignant beings, who occupied the middle space and served as intermediaries between gods and men, superior to the latter, inferior to the former.

There is, however, an essential difference between the powers of this sublunary world--elements and demons--and the stars. The former are subject to the activity of the latter, their various manifestations are caused by the combined influence of the heavenly bodies; to the latter alone belong constancy and regularity; they alone serve for the purposes of scientific divination.

To sum up, then, this long catalogue, astrological paganism deified the active principles which move all celestial and terrestrial bodies. Water, fire, earth, the sea, and the blast of the winds, but above all the luminous heavens of the fixed stars and planets revealed the boundless power of the God who filled all nature. But this pantheism no longer naively regarded this nature as peopled by capricious spirits and unregulated powers. Having become scientific, it conceived the gods as cosmic energies, the providential action of which is ordered in a harmonious system.

Oriental theologians developed the idea that the world forms a trinity; it is three in one and one in three; it is made up of the sphere of the fixed stars, regarded as not resolvable into parts, of the seven spheres of the planets and of the earth, starting from the moon. According to some of these theologians, each of the inferior worlds received a portion of its power from the superior worlds and shared in their energy, and the source of all force and all virtue resided in the highest sphere, one and indivisible, which regulated the movements of all the other parts of the universe.

But this is not the theory which triumphed in the Roman empire. Rather it was supposed that the motive power, which set in motion all the cosmic organism, came from the Sun,

and thus the Sun was raised to the rank of a Supreme God.[75] This Sun-worship was the logical result of a paganism steeped in erudition, which had become a religious form of cosmology. Renan[76] once observed: "The life of our planet has its real source in the sun. All force is a transformation of the sun. Before religion had gone so far as to proclaim that God must be placed in the absolute and the ideal, that is to say, outside of the world, one cult only was reasonable and scientific, and that was the cult of the Sun." The worship of Sun and Moon preceded that of the other planets, and even when the system of "the Seven" was constructed by astronomy, a distinction was made between the great luminaries which preside over day and night and the five other wandering stars. But it is a remarkable fact that at first the primacy was assigned to the Moon. It was only by slow degrees that the ancients discovered the unequalled importance in the cosmic system as a whole of the heavenly body which gives us light and, to say the truth, they never attained to the fulness of the idea. Thus it is that, if we go back to the earliest historical times, we see that in Babylonia the principal god--for he was endowed with the male sex,--was the Moon, Sin, which regularly precedes Shamash, the Sun. This god preserved the chief place at Carrhæ in Osroëne and throughout a large part of Anatolia up to the time of the Roman Empire. The predominance of the worship of Men, as he was called in Asia Minor, is due to the persistence in this remote country of ancient ideas, elsewhere out of date.

In hot countries the sun is, above all, an enemy, against which men protect themselves, and the dwellers in the scorching plains of Mesopotamia preferred to the star whose burning heat inflamed the air, parched the land, and exhausted the body, that star whose gentle light illumined, without menacing, them. In the freshness of the night the Moon shed the wholesome dews, and her brightness, then as now, guided caravans across the desert. Everywhere her phases, obvious to all eyes, served to measure time before the duration of the year was known, and sacred calendars regulated religious

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ceremonies and civil life according to her course. When her face was hidden, a fearful portent was seen in this eclipse, and there was attributed to this powerful divinity a multitude of mysterious influences, the recollection of which survived in astrology and was indefinitely perpetuated in popular superstitions. To it also were attributed strange effects on the growth of plants and on the health of women. As is often the case, the goddess retained in common belief the power of which theology had robbed her. However, she was never entirely deprived of her authority. In Egypt in spite of very early attempts to establish the undivided sovereignty of the Sun Ra, in the end, in heaven as on earth, preference was given over single sovereignty to the joint power of sister and brother, of wife and husband, of Isis and Osiris. This dualism still inspires the Alexandrine mysteries of the epoch of the Ptolemies, and is reaffirmed in the theories of Egyptian astrologers who divided the supremacy over the other five planets between the "two eyes of heaven."

But among the Semitic peoples an erudite clergy, hereditarily devoted to the study of the starry sky, drew more boldly the religious conclusions of their scientific discoveries. Little by little they established the primary importance of the sun in the celestial mechanism, and they asserted its pre-eminence more confidently in proportion as they understood it better.

Continually placing it farther and farther off in space, these priests acquired a more and more correct idea of its formidable dimensions. When they had studied its revolutions, they realised what relations connected it with physical phenomena and with the succession of the seasons. The final blow was struck at the ancient prestige of the moon when it was discovered that she shines with a borrowed or, as they said, a bastard light. Sun-worship is essentially a learned cult: it grew with science itself, and was definitely established at the period when the latter attained its zenith in antiquity. At no other

point does one perceive more clearly the ties which, in the religions of the East, united intellectual research with the evolution of belief.

According to the so-called "Chaldean" system, the sun, as we have seen,[77] occupies the fourth rank in the series of planets. Three are above it, Mars, Jupiter, and Saturn, and three below it, Venus, Mercury, and the Moon. In other words, the Sun moves in the midst of the heavenly spheres. It occupies the central position among the seven circles of the universe.

The other planets appeared to revolve round it, or rather to escort it, and astrologers delighted to point to the Royal Sun (Βασιλεὺς Ἥλιος) advancing in the midst of his satellites, as earthly princes, whose tutelar star he is, march encircled by their guards.

Further, the "Chaldeans" had thought out an original solution of a problem which caused much perplexity to ancient astronomers, namely, that presented by the irregular courses of the planets. They had observed that the apparent advances, stoppages, and regressions of these latter were connected with the revolutions of the sun,--in reality of the earth,--and they had come to the conclusion that the sun governed their movements: the sun was as it were the chorus-leader who directed the rhythmic evolutions of the wandering stars. It not only drew in its course Mercury and Venus which, as had been ascertained, were never more than a short distance from it, but it also regulated the movements of the three superior planets, and acted upon them by the force of its heat in much the same way as upon terrestrial vapours, which it caused to ascend or descend. According to the position which it occupies relatively to them, it impels them forwards, arrests them, or drives them backwards; and this it does mechanically, exerting its power, like every astrological influence, according to certain angles or "aspects."

Berosus made a particular application of this same theory to the phases of the moon, and other Chaldeans extended this explanation to the movements of comets. They even went so far as to make the revolutions of the fixed stars depend upon the sun. The essential idea on which all these doctrines were based is that the sun in virtue of its intense heat possesses a power of alternate repulsion and attraction, which according to its distance, or the direction of its rays, now drives the heavenly bodies away from it, and now draws them towards it,--unique focus of energy which causes them all to move. This mechanical theory, which contains a sort of anticipation of the doctrine of universal gravitation and of the heliocentric system, was bound to serve as the basis of a whole learned theology.

For, as we have said, in the eyes of Chaldean astronomers the fixed stars, and above all the planets, are the authors of all the phenomena of the universe, and nothing here below is produced save in virtue of their combined activities. That, then, which rules the complicated play of their revolutions and their aspects, will be the arbiter of destiny, the master of all nature. Placed at the centre of the great cosmic organism, it animates the whole of it, as the heart supports human life, and both in scientific treatises and in mystic hymns men delighted to term it "the heart of the world" (καδία τοῦ κόσμου).

Thus the bright star of day, set in the midst of the celestial spheres, by the power of its heat vivifies the immense macrocosm through which its fires radiate. Henceforth it will no longer be celebrated, in verse and in prose, merely as the power which, besides light, brings to the world below warmth, fertility, and joy; the ancient conception is amplified and rendered more precise by the touch of science: the sun will become the conductor of the cosmic harmony, the master of the four elements and the four seasons, the heavenly power which, by the invariable changes of its annual course, produces, nourishes, and destroys animals and plants, and by the alternation of day and night warms and cools, dries or moistens the earth and the atmosphere. But, above all, in

sidereal religion it will be that supreme regulator of the movements of the stars which at every moment inspires their ever-changing motions, that to which they owe all their qualities and perhaps even (as some believed) their light. Pliny already recognised it as the sovereign divinity which governed nature, *principale naturae regimen ac numen*.[78]

But this universe, so well ordered, cannot be driven by a blind force. The sun, which directs the harmonious movements of the cosmic organism, will, then, be a fire endowed with reason, an intelligent light (φῶς νοερόν). It will be regarded by heathen theologians as the reason which controls the world, *mens mundi et temperatio*.[79] The most important corollaries will be drawn from this, for the sun, the reason of the world, will become the creator of the particular reason which directs the human microcosm. To it is attributed the formation of souls. Its glowing disk, darting its rays upon the earth, constantly sent particles of fire into the bodies which it called to life, and after death, as we shall see,[80] it caused them to reascend to it. Such, in its broad outlines, is the scientific theology which provided both a foundation and a justification for Roman Sun-worship.

From astronomical speculations the Chaldeans had deduced a whole system of religious dogmas. The sun, set in the midst of the superimposed planets, regulates their harmonious movements. As its heat impels them forward, then draws them back, it is constantly influencing, according to its various aspects, the direction of their course and their action upon the earth. Fiery heart of the world, it vivifies the whole of this great organism, and as the stars obey its commands, it reigns supreme over the universe. The radiance of its splendour illumines the divine immensity of the heavens, but at the same time in its brilliance there is intelligence; it is the origin of all reason, and, as a tireless sower, it scatters unceasingly on the world below the seeds of a harvest of souls. Our brief life is but a particular form of the universal life. Physical theories, applied to the movements of the planets to and fro, will be extended to the relations of the King of the

stars with the psychic essences which are subject to him. By a succession of emissions and absorptions he will alternately cause these fiery emanations to descend into the bodies which they animate, and after death will gather them up and make them reascend into his bosom. This coherent and magnificent theology, founded upon the discoveries of ancient astronomy in its zenith, gradually imposed on mankind the cult of the "Invincible Sun" as the master of all nature, creator and preserver of men.

This Sun-worship was the final form which Roman paganism assumed. In 274 the emperor Aurelian, as we have seen,[81] conferred on it official recognition when, on his return from Syria, inspired by what he had seen at Palmyra, he founded a gorgeous temple in honour of *Sol invictus*, served by priests who had precedence even over the members of the ancient *Collegium pontificum*; and in the following century, the Claudian emperors worshipped the almighty star not only as the patron but also as the author of its race. The invincible Sun, raised to the supreme position in the divine hierarchy, peculiar protector of sovereigns and of the Empire, tends to absorb or subordinate to himself all the other divinities of ancient Olympus.

These Emperors thus recognised the superiority over Roman idolatry of this cosmic religion of the East, which the speculations of theologians had elevated to a kind of monotheism. A still closer approach to the Christian conception was obtained. This astronomic pantheism, which deified the world, having the Sun for its centre, readily agreed with Stoic hylozoism. Without much difficulty it was harmonised with the ancient theory which placed the seat of divinity in the highest sphere, that of the fixed stars; but from the time of its expansion it was engaged in a struggle against those who, following Plato and Aristotle, set God outside the limits of all the universe, representing him as a Being no longer immanent, but transcendent, distinct from all matter. Philo the Jew was not the only man to reproach the Chaldeans with worshipping the creation instead of the creator. Oriental cults were bound to make early concessions to this idealism, and

from the second century, even among the Syrian priests, the doctrine is found to prevail that a Jupiter "Most High" sits in the ether which spreads above the vault of the highest heaven (*Iupiter summus exsuperantissimus*). The Sun henceforth becomes a subordinate power, a reflexion or sensible expression of a superior divinity. But in order to avoid breaking with tradition, from the luminary which gives us light was detached that universal "Reason," of which the Sun had hitherto been the focus, and the existence of another purely spiritual sun was postulated, which shone and reigned in the world of intelligence (νοερός κόσμος), and to this were transferred the qualities which henceforth appeared incompatible with matter. We can follow this doctrinal evolution in the works of the Neo-Platonists, and discern its termination in the speculations of Julian the Apostate. The "intelligent" Sun (νοερός) becomes the intermediary between the "intelligible" God (νοητός) and the visible universe.

We have rapidly sketched the system of theology which was imposed on the Empire. Let us in conclusion attempt to set before ourselves what a revolution these ideas produced in paganism.

At the moment when they expanded over the Latin world, the mass of the people still remained almost entirely in the ancient state of idolatry which was contemporary with the Punic wars, and the rustic superstitions of the peasants of Latium still found expression in the pontifical ritual of the Roman people. The learned theology which spread from the East, elevated and enlarged religious thought by holding out an infinitely more lofty conception of divinity. This pantheism stoutly asserted the unity of the world, governed by a supreme intelligence, but in this vast organism, all the parts of which acted and reacted upon each other, man, a privileged creature, was connected with the sidereal gods by a close relationship.

His eye perceived their distant light. His divine reason in virtue of its nature could grasp divine truths. In place of the inhabitants of Olympus a kind of supermen, born in time

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and exempted only from old age and death, it conceived ever-lasting beings, unwearied and invincible, who ceaselessly ran their changeless course throughout an endless series of ages; in place of gods bound to a city or to a country and, so to speak, *adscripti glebae*, differing with the diversity of peoples, it reverenced universal or, as they were already called, "catholic"--powers, whose activity, regulated by the revolutions of the celestial spheres, extended over all the earth and embraced the whole human race.

An almost anarchical society of Immortals, whose feeble and capricious will raised doubts as to their power, was replaced by the idea of a harmonious ensemble of sidereal gods, who, irresistibly guided by the Sun, the heart of the world, the source of all movement and all intelligence, imposed everywhere the inevitable laws of omnipotent Destiny,--last but not least in place of the old methods of divination, now fallen into discredit, of deceitful portents and ambiguous oracles, astrology promised to substitute a scientific method, founded on an experience of almost infinite duration; astrology claimed the power of deciphering with certainty the hitherto inscrutable book of the sky, and of determining the destiny of individuals with the same precision as the date of an eclipse.

We can understand how the amplitude of this masterly conception would raise men's enthusiasm and inspire poets, how it would appear like a complete revelation of the world, and how, in combination at first with Stoic philosophy, then modified by Platonic idealism, the ancient "Chaldean" creed should have been able so long to resist Christianity, the triumph of which it had nevertheless prepared.

The same Semitic race which brought about the fall of paganism is also that which put forth the most powerful effort to save it.

Lecture 5. Astral Mysticism, Ethics And Cult

A theology which was based on theories of celestial mechanism, which deified mere abstractions such as Time and its subdivisions, which attributed a sacred character to numbers themselves, must, it would seem, have been repellent by reason of its dry metaphysical character. A creation of astronomers, it would appear to have been incapable of appealing to any but an intellectual *élite*, and of winning over any but speculative minds. We might well be astonished, at first sight, that a religion so arid and abstruse should have been able to conquer the ancient world, and we ask ourselves how it obtained a hold over men's souls and was able to attract a multitude of believers.

The answer is that this potent system, which set itself to satisfy the intelligence, made a yet more effective appeal to emotion. If the cults of the East pretended to answer all the questions which man asks concerning the world and himself, they also aimed at stirring his emotions, at arousing in him the rapture of ecstasy.

The leaning towards mysticism, which is one of the characteristic traits of the Syrian Posidonius, was shared by all the adepts of "Chaldean" creeds. We must attempt to analyse here the character of this sidereal mysticism, an original form of devotion, if there ever was one, a curious and little known expression of religious feeling in the days of antiquity, and to show what system of ethics sprang from it, what form of worship corresponded to it, and how it was reconciled with fatalism. After the theory, we pass on to the practice.

The magnificent appearance of the glittering sky has always vividly impressed mankind, and whoever has enjoyed the soft brilliance of an Eastern night, will understand how in that country adoration was naturally excited for the inextinguishable centres of light on high. But this "cosmic emotion," as it has been termed, varies constantly according to the idea which has been formed of the universe. There is assuredly an enormous distance between the views of primitive man, who, when he raised his eyes to the firmament, sometimes dreaded lest this solid vault should fall and crush him, and the

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veneration of a Kant, who, when considering the stellar systems piled up to infinity above him, felt himself seized with the same respectful wonder that he bestowed on the moral law which he apprehended within him by reason. The feeling has been developed with the progress of knowledge, and in proportion to the precision to which ideas of immensity and eternity attained. In the Greeks the cosmos did not arouse, as in ourselves, the troublesome thought of an extension prolonged to infinity beyond the most distant nebula which the telescope can reach. The world then had limits. Above the sphere of the fixed stars, which surrounded it on all sides, the ancients supposed that there was nothing but a void or ether. Heaven in their astronomy was like the earth in their geography, a much more limited expression than it is nowadays. The vastness of the visible constellations was not so overwhelming to them as it is to our scientific knowledge, and the distances at which they fixed these bodies, did not suggest to them as to us a distance so great that its extent transcends the limits of our imagination and even figures cannot enable us to realise it. When they gazed into the depths of space, they were not seized to the same degree as we with giddiness at the abysses, nor crushed by the feeling of their own littleness. They would not have cried like Pascal, when meditating on the disproportion between man and nature, incommensurable and speechless: "The eternal silence of these boundless spaces frightens me."[82] The feeling which struck the ancients was mainly one of admiration. Seneca[83] develops this thought, that the stars, even if we do not bear in mind the benefits which they diffuse over our earthly abode, provoke our wonder by their beauty and demand our veneration by their majesty.

From the passages which are devoted to celebrating their splendour, I will quote only one, the final touch of which will make clear the entire difference which separates the ancient from the modern conception. Manilius ends his fifth book by a grandiose description of the brilliance of those moonless nights when even stars of the sixth

magnitude kindle their crowded and gleaming fires, seeds of light amid the darkness. The glittering temples of the sky then shine with torches more numerous than the sands of the seashore, than the flowers of the meadow, than the waves of the ocean, than the leaves of the forest. “If nature,” adds the poet, “had given to this multitude powers in proportion to its numbers, the ether itself would not have been able to support its own flames, and the conflagration of Olympus would have consumed the entire world.”[84]

We have seen[85] how admiration for the beauty of the cosmos, the discovery of the celestial harmony, had led to the declaration of the existence of a guiding Providence. But this is not the most characteristic side of the doctrine: all systems of theology invoke the order of nature as a proof of the existence of God. What is more original is that they took this “cosmic emotion” which every man feels and transformed it into a religious sentiment.

The resplendent stars, which eternally pursue their silent course above us, are divinities endowed with personality and animated by feelings. On the other hand, the soul is a particle detached from the cosmic fires. The warmth which animates the human microcosm, is part of the same substance which vivifies the universe, the reason which guides us partakes of the nature of those luminaries which enlighten it.[86] Itself a fiery essence, it is kin to the gods which glitter in the firmament. Thus contemplation of the heaven becomes a communion. The desire which man feels to fix his eyes long upon the star-spangled vault, is a divine passion which transports him. A call from heaven draws him towards the radiant spaces. In the splendour of the night his spirit is intoxicated with the glow which the fires above shed upon him. As men possessed, or as the corybantes in the delirium of their orgies, he gives himself up to ecstasy, which frees him from the trammels of his flesh and lifts him, far above the mists of our atmosphere, into the serene regions where move the everlasting stars. Borne on the wings of enthusiasm, he projects himself into the midst of this sacred choir and follows its harmonious

movements. Then he partakes in the life of these luminous gods, which from below he sees twinkling in the radiance of the ether; before the appointed hour of death he participates in their divinity, and receives their revelations in a stream of light, which by its brilliance dazzles even the eye of reason.

Such are the sublime effusions in which the mystic eloquence of a Posidonius delights. Nevertheless in this learned theology, whose first authors were astronomers, erudition never loses its rights. Man, attracted by the brightness of the sky, does not only take an unspeakable delight in considering the rhythmic dance of the stars, regulated by the harmonies of a divine music produced by the movements of the celestial spheres. Never weary of this ever-repeated spectacle, he does not confine himself to enjoying it. The thirst for knowledge, which is innate in him, impels him to enquire what is the nature of these glowing bodies whose radiance reaches him, to discover the causes and the laws of their unceasing movements. He aspires to comprehend the course of the constellations and the sinuous path of the planets, which should reveal to him the rules of life and the secrets of destiny. As soon as he approaches the limits of the heavens, his desire to understand them is inflamed by the actual facility which he experiences in satisfying it. The transports which draw him towards the higher regions, do not dull but enlighten his mind. Are not all discoveries of astronomy revelations of their nature made by the sidereal gods to their earnest disciples? This mystic contemplation of heaven, source of all intelligence, will be the religious ideal of lofty spirits. The astronomer Ptolemy, who of all the savants of antiquity had perhaps the most influence on succeeding generations, will forget his complicated calculations and his arduous researches to sing of this intoxication. We have preserved the following lines of his [87]: "Mortal as I am, I know that I am born for a day, but when I follow the serried multitude of the stars in their circular course, my feet no longer touch the earth; I ascend to Zeus himself to feast me on ambrosia, the food of the gods."

Let us compare this serene ecstasy with the transports of Dionysiac intoxication, such as Euripides for example depicts for us so strikingly in the Bacchæ, and we shall at once realise the distance which separates this astral religion from the earlier paganism. In the one, under the stimulus of wine, the soul communicates with the exuberant forces of nature, and the overflowing energy of physical life expresses itself in tumultuous exaltation of the senses and impetuous disorder of the spirit. In the other, it is with pure light that reason quenches her thirst for truth; and "the abstemious intoxication,"[88] which exalts her to the stars, kindles in her no ardour save a passionate yearning for divine knowledge. The source of mysticism is transferred from earth to heaven.

We, who in our northern towns scarcely perceive the light of the stars, continually veiled in fogs and dimmed by smoke, we to whom they are merely bodies in a state of incandescence moved by mechanical forces, we can hardly comprehend the strength of the religious feeling which they inspired in the men of old. The indefinable impression which is produced by the great spectacles of nature, the desire which possesses us of probing the causes of her phenomena, were in their case combined with the aspirations of faith towards these "visible gods," who were ever present to be worshipped. The passion for knowledge, the ardour of devotion, were blended in the deep emotion which was stirred by the idea of a communion between man and the harmony of the skies.

Think of the prestige which such a theory gave to the astrologer who is in constant relation with the divine stars. It is nowhere more clearly expressed than in a passage of a rhetorician belonging to the Augustan age, Arellius Fuscus.[89] "He to whom the gods themselves reveal the future, who imposes their will even on kings and peoples, cannot be fashioned," he says, "by the same womb which bore us ignorant men. His is a superhuman rank. Confidant of the gods, he is himself divine." Then he adds:

If the pretensions of astrology are genuine, why do not men of every age devote themselves to this study? Why from our infancy do we not fix our eyes on nature and on the gods, seeing that the stars unveil themselves for us, and that we can live in the midst of the gods? Why exhaust ourselves in efforts to acquire eloquence, or devote ourselves to the profession of arms? Rather let us lift up our minds by means of the science which reveals to us the future, and before the appointed hour of death let us taste the pleasures of the Blest.

This lofty conception, which was formed of astrology, queen of sciences, this mysticism which gave it a sacred character, entailed ethical consequences of extreme importance. The *mathematici* of the Roman empire were the successors of the ancient Chaldean priests, and they never forgot it. They love to assume the holy guise of incorruptible prophets, and to consider the exercise of their profession as a priesthood. They are fond of laying stress on the purity of their morals, and they complacently enumerate all the qualities which bring them near to the divine nature,--chastity, sobriety, integrity, self-renunciation. If others seek fortune at the price of a thousand efforts, the astrologer, dedicated to arduous research, is bound to surrender himself entirely to be penetrated by the intelligence of God.

"Impendendus homo est, dens esse ut possit in ipso."[90]

Thus astrologers, who profess to discover the mysteries of fate, lead an austere life, or at any rate they affect it. This is the very condition of their power. Mortals do not share in the heavenly ecstasy, unless they have merited it by the morality of their conduct. Science is a revelation promised to virtue. Man must be purified from all defilement in order to render himself worthy of the society of the gods, and of the knowledge of heavenly things. This idea, that a man's vices weigh him down and detain him here below, is frequently found developed. The doctrine contrasts the body formed of earth with the sacred fire of the spirit. All carnal desires in some measure materialise this

sacred fire at the same time that they pollute it, and hinder it from ascending to the ether. On the other hand, if the soul emancipates itself from the passions of the body, it will be able to fly lightly and easily to the stars. In the vehement polemic which Posidonius launches against Epicurus, he reproaches him,[91] in regard to his astronomical doctrines, with having been "blinder than a mole," and he adds: "No wonder, for to discover the real nature of things is not the part of men devoted to pleasure, but of those whose virtuous character makes the good their ideal, and who do not prefer to it the comfort of their beloved flesh." The absurdity of the cosmography professed by the Epicureans is, in his eyes, a consequence of their dissolute life. Here we see set forth the idea, so dangerously developed later, that true knowledge is the reward of piety.

The marvels of nature produce on us a mysterious impression. The view of immensity elevates us above the vulgarities of life. This feeling, innate in man, astral religion has seized upon and developed splendidly in order to make it a source of morality. Theologians celebrate the spiritual joys which this religion has in store for its adepts, the intensity of which renders all material delights insipid and contemptible; in a hundred ways they contrast the meanness of earthly with the splendour of heavenly things. How should the worshippers of the sky take delight in chariot-races, or be seduced by the songs and dances of the theatre, they who have the privilege of contemplating the gods and of listening to their prophetic voices? How utterly do their thoughts, which move among the stars, scorn from the heights of this resplendent abode the gilded palaces and the pompous luxury of wealth! They heap not up silver and gold, treasures worthy of the dark places of the earth from which avarice draws them, but they fill their souls with spiritual riches and make them masters of all nature, in such wise that their possessions extend to the confines of the East and of the West. Even the privations of exile cannot touch them, since under all climes they find the same stars at the same

distance from their watchful eyes. Can they but mingle with them, and their souls mount to the bright regions to which they are drawn by their kinship with the heavenly fires, it matters but little to them what earth they tread with their feet. Absorbed in her sublime researches, our reason will disdain the perishable goods of this life and the gross pleasures of the multitude. She will free herself from all the carnal desires aroused in her by the body, fashioned of earth. Thus devotion to science is surrounded in sidereal worship with a halo of religion. The exaltation of intellectual life, which alone is divine, leads here to asceticism.

Astral mysticism, we see, conceived a blissful state of mind where man, even on earth, freed himself of all that was earthly, emancipated himself from the needs of the body, as from bonds, and from the impulses born of it, to devote himself to the contemplation of nature and of the starry sky, which imparted to him direct knowledge of divine activity. This ideal, sternly ascetic, in that it set the satisfaction of bodily instincts in sharp opposition to the aspirations of sovereign reason, led to a life of self-renunciation, illumined only by the sacred joys of study. But has man's will the power to choose this happy lot? Does not astrology formulate a principle destructive of all morality and all religion, the principle of fatalism?

Fatalism indeed is the capital principle which astrology imposed on the world. The Chaldeans were the first to conceive the idea of Necessity dominating the universe.[92] This is also one of the ruling ideas of the Stoics.[93] An absolute determinism is implied in all the postulates of the science of stellar influence on human life, and Manilius has expressed it in a striking line:

"Fata regunt orbem, certa stant omnia lege."[94]

The power of this fatalistic conception in ancient times may be estimated by its long-continued survival, at least in the East, where it originated. From the Alexandrine period,

it spread over the whole Hellenic world, and at the close of paganism it is still against this doctrine that the efforts of Christian apologetics are mainly directed, but it was destined to outlast all attacks and even to impose itself on Islam. For, Mahommedanism is, in this respect, the heir of paganism.

The capital objection which its adversaries, whether heathen or Christian, never ceased to advance against it,--the dialectic of Carneades made already brilliant use of this weapon,--is the same that the defenders of the doctrine of free will have never ceased to repeat--namely, that the absence of free will destroys responsibility: rewards and punishments are meaningless if men act under a dominating necessity; if they are born heroes or criminals, morality entails no merit and immorality no reproach. We cannot set forth here the metaphysical discussions provoked by this controversy, which always has been, and always will be, carried on. But, from a practical point of view, Stoicism proved by facts--an irrefutable argument in ethics--that fatalism is not incompatible with a manly and active virtue. Nay more, it was possible to regard it as giving a religious basis to virtue, if virtue resulted from the accord of microcosm and macrocosm which found its highest expression in ecstasy. Some modern thinkers, like Schleiermacher, have made true religion consist in the feeling, on the part of the creature, of absolute dependence on the infinite Cause of the universe. Astrology, by strengthening this feeling of dependence, has been a source of real piety. Its professors elevate to a duty complete resignation to omnipotent fate, cheerful acceptance of the inevitable. They declare themselves submissive to destiny even the most capricious, like an intelligent slave who guesses his master's wishes in order to satisfy them, and can make the harshest servitude tolerable. This passionate surrender, this eagerness to submit to divine Fate inspired certain souls in days of old with feelings so fervent as to recall the rapture of Christian devotion, which burns to subject itself to the will of God. It has been observed that the renunciation of Demetrius, quoted by Seneca,[95] affords a singular parallel to

one of the most famous Christian prayers, the "Suscipe" of St. Ignatius, which ends the book of *Spiritual Exercises*:

I have but one complaint to address to you, immortal gods, that you did not make me sooner know your will. I would myself have anticipated what, at your call, I offer to submit to now. Would you take my children? It is for you that I have reared them. Do you desire some part of my body? Take it from me; it is but a slight sacrifice I make, since I must soon leave it altogether. Do you desire my life? Why should I hesitate to restore to you that which you gave me? . . . I am not constrained to aught, I suffer nought against my will, I am not obedient to God, I am in accord with him, and the more so, because I know that everything takes place in virtue of an immutable law proclaimed from all eternity.

It is the ideal of pure Stoicism that is expressed in this effusion, but, if it cannot be called anti-religious, it was at least in contradiction to all established religions. If an irrevocable Destiny is imposed on us, no sacred ceremony can change its decrees. Worship is unavailing, it is idle to demand from divination the secrets of a future which nothing can alter, and prayers--to use an expression of Seneca[96] --are nothing but the consolations of sickly souls.

And without doubt certain spirits, as Suetonius states of the Emperor Tiberius,[97] "fully convinced that everything is ruled by Fate, neglected the practice of religion." The astrologer Vettius Valens[98] declares it useless. "It is impossible to defeat by sacrifice that which has been established from the beginning of time." We must therefore reverence the superior power which rules the universe, without demanding aught of it, and we must content ourselves with the joy which is caused by a feeling of intimate union of creature with creator.

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But ordinary people did not rise to this haughty ideal of piety. A Peripatetic of the third century, Alexander of Aphrodisiac, has forcibly characterised the want of logic which led the majority of mankind to act in contradiction to their theories.[99]

Those [he says] who maintain energetically in their discourses that Fate is inevitable and who attribute all events to it, seem to place no reliance on it in the actions of their own lives. For they call upon Fortune, thus recognising that it has an action independent of Fate; and moreover they never cease to pray to the gods, as though these could grant their prayers even in opposition to Fate; and they do not hesitate to have recourse to omens, as though it were possible for them, by learning any fated event in advance, to guard themselves against it. The reasons which they invent to establish a harmony between their theories and their conduct, are but pitiful sophisms.

And in fact, as a Christian writer of the fourth century observes, if the pagans of Rome were about to marry, if they intended to make a purchase, or aspired to some dignity, they hastened to ask the soothsayer for prognostications, while at the same time praying the Fates to grant them years of prosperity.

A fundamental inconsistency which we noted from the beginning[100] is obvious in all this development of astrology, which professed to become an exact science, but which always remained a sacerdotal theology. The stars were regarded as divine at Babylon before the doctrine of universal determinism had been constructed, and this character was preserved--in defiance of logic. In the temples of Oriental gods astrology assumed, or rather maintained, a very different character from that under which it presented itself in the schools or the observatories. A didactic treatise like the *Tetrabiblos* of Ptolemy, where the effects of the planets are traced to physical causes, could never have become the gospel of any sect. In the sidereal cults Fortune will no longer be represented as a goddess blind and deaf, who with unreasoning favour or implacable malignity makes sport of deserving and undeserving alike. Less stress will be laid on the all-powerfulness

of Necessity than upon the divinity of the stars. These were no longer merely cosmic forces, whose propitious or unpropitious operation was weakened or strengthened according to the windings of a course fixed from all eternity. The old mythology had not here been reduced to mathematical formula. The celestial bodies had remained gods and goddesses, endowed with senses and qualities, sometimes wroth but always placable, who could be propitiated by prayers and offerings. Occult ceremonies, magical incantations, had, it was thought, the power of rescuing even here below the faithful from the enslavement which Destiny caused to lie heavy on the rest of mankind, nay more, of bending the celestial spirits to the will of the believer. Even the theorist Firmicus Maternus, though vigorously asserting the omnipotence of Fate, invokes the aid of the gods to enable him to resist the influence of the stars.

Sidereal determinism, pushed to its extreme consequences, was a theory of despair, the weight of which crushed the man. He felt himself mastered, overpowered by blind forces which impelled him as irresistibly as they caused the celestial spheres to move. His mind sought to escape from the oppression of this cosmic mechanism, to free itself from the slavery in which Ἀναγκή held it. No longer was reliance placed upon the ceremonies of ancient cults to rescue him from the rigour of her dominion, but Oriental religions provided the remedy for the evil which they had spread. The new master who has possessed himself of the sky will be propitiated by new means. Not only magic but also mysteries profess to teach methods for exorcising Fate. They will be able to appease the wrath of sidereal powers, and to win their favour by rites and offerings; they will teach above all how to prolong man's life beyond the term appointed by Destiny, and to assure him an immortality of bliss.[101]

Thus belief in Fate not only (1) became a source of moral inspiration to noble minds, but also (2) provided a justification of the necessity of positive worship.

Concerning the worship which was paid to the stars in the West we possess very few data, even for the most important of all, that of the Sun. I will not lay stress on certain details which have come down to us about the rites of the Moon, the stars, the signs of the zodiac, etc. We shall only mention some liturgical practices which have had permanent results.

It was customary to worship the rising Sun (*Oriens*) at dawn, at the moment when its first rays struck the demons who invaded the earth in the darkness. Tacitus describes to us how, at the battle of Bedriacum in A.D. 69, the soldiers of Vespasian saluted the rising sun with loud shouts after the Syrian custom.[102] In temples thrice a day--at dawn, at midday, and at dusk--a prayer was addressed to the heavenly source of light, the worshipper turning towards the East in the morning, towards the South at midday, and towards the West in the evening. Perhaps this custom survived in the three daily services of the early Church.

A very general observance required that on the 25th of December the birth of the "new Sun" should be celebrated, when after the winter solstice the days began to lengthen and the "invincible" star triumphed again over darkness. It is certain that the date of this *Natalis Invicti* was selected by the Church as the commemoration of the *Nativity* of Jesus, which was previously confused with the Epiphany. In appointing this day, universally marked by pious rejoicings, which were as far as possible retained,--for instance the old chariot-races were preserved,--the ecclesiastical authorities purified in some degree the customs which they could not abolish. This substitution, which took place at Rome probably between 354 and 360, was adopted throughout the Empire, and that is why we still celebrate Christmas on the 25th of December.

The pre-eminence assigned to the *dies Solis* also certainly contributed to the general recognition of Sunday as a holiday. This is connected with a more important fact, namely, the adoption of the week by all European nations. We have seen that in the

astrological system each day was sacred to a planet. It is probable that the worshipper prayed to the presiding star of each day in turn. We still possess the text of these prayers addressed to the planets in the East as in the West. We have some in Greek, but of a late date, and the most curious are those of the pagans of Harran near Edessa, which an Arabic writer has transmitted to us in great detail. Thus, for instance, to call upon Saturn it was necessary to await the favourable moment, to don black vestments, to approach the sacred place humbly, like a man sunk in sorrow, to burn a perfume composed of incense and opium mixed with grease and the urine of a goat, then, at the moment when the smoke arose, to raise the eyes to the star and say:

"Lord, whose name is august, whose power is widespread, whose spirit sublime, O Lord Saturn the cold, the dry, the dark, the harmful, . . . crafty sire who knowest all wiles, who art deceitful, sage, understanding, who causest prosperity or ruin, happy or unhappy is he whom thou makest such. I adjure thee, O primeval Father, by thy great mercies, and thy noble qualities, to do for me this and that!"

"This having been said," continues the text, which I am abridging, "thou shalt bow thyself down with humility and contrition, and while bending thou shalt repeat the prayer several times."

We do not suppose that in the Roman Empire devotees would have gone through such complicated ceremonies every day in honour of the planets,--the great prayer to Jupiter fills not less than four pages,--but certainly the use of an analogous liturgy in certain cults, notably in the mysteries of Mithra, contributed largely to the adoption of the week throughout the Roman Empire.

This diffusion of the week and even its invention are much more recent than is usually supposed. It is known that the Jews already divided time into consecutive groups of seven days ending with the Sabbath, but these days were not each under the patronage

of a planet: they were merely counted. This system of the measurement of time originates in the division of the lunar month into four equal parts. This hebdomadal period is also found elsewhere, but the astrological week has a much later origin. It is connected with the general theory of "chronocratories," which assigned to each planet the dominion over an hour, a day, a year, and even over a period of a thousand years [103]; and the assignment of each of these to one of the gods is the result of an ingenious calculation, which is based on the so-called "Chaldean" arrangement of the planets. Now this arrangement appears nowhere before the second century B.C., and it may be considered certain that our week is a creation of the Hellenistic period. It was probably first introduced into the sidereal cults of Mesopotamia and of Syria, thence passed to Alexandria, and it is about the age of Augustus that it began to supplant in Latin countries the old Roman *nundinum* of eight days, and it ended by replacing all local calendars. Adopted by the Church, in spite of its suspicious origin, it was imposed on all Christian peoples. When to-day we name the days Saturday, Sunday, Monday, we are heathen and astrologers without knowing it, since we recognise implicitly that the first belongs to Saturn, the second to the Sun, and the third to the Moon.

If I may be allowed to conclude with an observation, which takes us a little away from our subject, there can perhaps be no more striking proof of the power and popularity of astrological beliefs than the influence which they have exercised over popular language. All modern idioms preserve traces of it, which we can no longer discern save with difficulty, survivals of vanished superstitions. Do we still remember, when we speak of a martial, jovial, or lunatic character, that it must have been formed by Mars, Jupiter, or the Moon, that an *influence* is the effect of a fluid emitted by the celestial bodies, that it is one of these "*astra*" which, if hostile, will cause me a *disaster*, and that, finally, if I have the good fortune to find myself among you, I certainly owe it to my *lucky star*?

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Lecture 6. Eschatology

In the previous lecture we showed how, to the astronomer theologians, contemplation of the sky had become the source of a mystic union with the divine stars. The sublime joys of ecstasy, which brings man into communion with the sidereal gods, give him but a foretaste of the bliss which is in store for him when after death his soul, ascending to the celestial spheres, shall penetrate all their mysteries. The transient exaltation, which illumines his intelligence here below, is a dim foreshadowing of the intoxication which will be wrought in him by the immediate prospect of the stars and the full comprehension of truth. The most ideal pursuits of the sage in this world are but a faint adumbration of a blessedness which will be perfected in the life to come.

Thus astral mysticism based upon a psychological experience the construction of a complete doctrine of immortality. It glorified its ideal of earthly life and projected it into the life beyond. These ideas, as they spread throughout the Roman world, could not fail to modify profoundly the whole conception of man's destiny. In to-day's lecture we shall devote ourselves to exhibiting this transformation.

At the beginning of the Empire the ancient beliefs concerning existence beyond the grave, the idea that the dead man lived a gloomy life in the tomb, sustained by the funeral offerings of his descendants, retained hardly any influence, and the mythological tales about the Styx, Charon's barque, and the punishments inflicted in the nether world no longer obtained any credence. Philosophical criticism had shown the absurdity of these lugubrious chimeras. Greek philosophy in general aimed at realising the *summum bonum* in this world. Of the two great systems which were predominant at Rome, one flatly denied a future life. It is well known that Epicurus taught that the soul is composed of atoms and is dissolved with the body, and there is no doctrine of the Master on which his disciples insist with more complacent assurance. Lucretius[104] praises him for having

driven from men's minds "this dread of Acheron which troubles the life of man to its inmost depths." The other great philosophical school, Stoicism, showed considerable hesitation concerning the fate in store for our souls. Its various representatives held different views on this point. Panætius, the friend of the Scipios, one of the writers who contributed most to win Rome over to the tenets of the Porch, resolutely declined to believe in a survival of the individual. In reality it is in this world that true Stoicism places the realisation of its ideal. For it the aim of existence is not the preparation for death but the attainment of perfect virtue. By giving freedom from the passions, virtue confers independence and felicity. The sage, a happy being, is a god on earth, and heaven can offer nothing more to him. In this system eschatological theories had only a secondary importance, and that explains their variations.

The negative point of view adopted by Panætius is that of the majority, perhaps, of the theorists of astrology. Among those who prided themselves on philosophy, many denied immortality or at least doubted it, as for instance Ptolemy, who was influenced by the ideas of the Peripatetics, or Vettius Valens, who represents purer Stoicism. According to them the divine spark which animated bodies, became merged after death in the cosmic fires, from which it had issued, without preserving any individuality. From death, then, they expected nothing but liberation from Destiny, of which they were the bondsmen here below; henceforth they were freed from those cruel necessities and pitiless vicissitudes to which those beings are subject who live under the planetary vaults. Their conception of existence and their highest aspirations were those to which the most antique of modern poets has given forcible expression; I mean Leconte de Lisle, who, adopting a definition of Alfred de Vigny, declared that life is "a sombre incident between two endless periods of sleep." His musical and despondent apostrophe is well known [105]:

“Et toi, divine Mort, où tout rentre et s’efface,
Accueille tes enfants dans ton sein étoilé,
Affranchis nous du temps, du nombre, et de l’espace,
Et rends nous le repose que la vie a troublé.”[106]

This pessimism, which regarded annihilation as a blessing, might be accepted by certain spirits and sometimes preached with a kind of passion, as by Pliny in a famous confession of faith.[107] But the majority, without venturing to admit the certainty of a future life, clung to it as a comfortable hypothesis entertained by certain thinkers.

We find it hard to resign ourselves to complete annihilation; even when reason acquiesces in the destruction of our transitory being, subconsciously we protest against it. The deep instinct of self-preservation drives man to desire a continuance of life, and feeling revolts against the anguish of an irrevocable separation, against the final loss of all one loves. Moreover in imperial Rome there were so many unpunished crimes, so much undeserved suffering, that men naturally took refuge in the hope of a happier future which would repair all the in-justices of a sorrowful present. This is the explanation of the ever-increasing triumph of new theories concerning a life to come. To the scepticism and the negative views which were prevalent at the end of the Republic, at least in intellectual circles, were opposed doctrines taught by the professors of the theology which found in Posidonius its most illustrious exponent. A Stoic, he combines the teaching of the Porch with the idealism of Plato, who held that the soul, being an immaterial essence, must rise to a fairer world. But he welcomes also, and above all, the religious traditions of the Syrians, of which he is to be the eloquent propagandist.

All Oriental mysteries profess to reveal to their adepts the secret of attaining to a blessed immortality. In place of the shifting and contradictory opinions of philosophers concerning the fate of man after death, these religions offered a certainty based on a divine revelation and corroborated by the belief of countless generations which had

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clung to it. The despairing world eagerly welcomed these promises, and philosophy, under-going a transformation, joined with the ancient beliefs of the East to give to the Empire a new eschatology.

In point of fact, the different cults conceived blessedness under very different forms, some of them gross enough. To the followers of Bacchus or of the Phrygian Sabazius drunkenness is divine possession. The devotee was to be admitted to the feast of the gods, there to rejoice with them for ever in a state of pleasant intoxication. The Alexandrine mysteries of Isis and Serapis diffused a less material conception of future happiness. The dead will descend to the nether world in full possession of his body as well as of his soul, and will enjoy an eternal rapture in contemplating face to face the ineffable beauty of the gods, whose equal he has become. But of the various beliefs which secured adepts in the Roman world, none was to become so influential as that of sidereal eschatology. This is the purest and most elevated doctrine which can be put to the credit of ancient paganism, and it was to establish a firm hold on the Western mind.

We shall attempt to show how it developed, by whom and when it was disseminated, and what different forms it assumed in the Græco-Roman world.

Certain beliefs which are found, side by side with many others, among primitive peoples, regard the spirits of the dead as departing to inhabit the moon or the sun, or even fancy that their evergrowing host forms the multitude of stars or crowds the long track of the Milky Way. This very ancient idea received a new significance when philosophers, as far back as Heraclitus, taught that the soul is of the same nature as the ether, which is, as it were, the soul of the universe. Just as the one causes our bodies to move, the other, they said, caused the stars to fly across the spaces of the heavens. At death the body fell to dust and was reunited with the earth, but the glowing breath which had animated it, ascended to the luminous fluid that extended above the clouds, and coalesced with this subtle air, which was the source of all life. The official epitaph on the Athenians who fell

at Potidæa in 432 B.C., expresses the conviction that the ether has received into its bosom the souls of these heroes as the earth has received their bodies.[108]

There we have an opinion wide-spread in the fifth century from one end of the Hellenic world to the other. In opposition, then, to the views of the Homeric age and of popular belief; these doctrines taught that the abode of souls was neither the tomb nor the nether realm of Pluto, but the upper zone of the universe. Some, with greater exactitude, made them the companions of the stars, whose divinity philosophers devoted themselves to proving.[109] The two ideas are closely related, for the affinity of gods and men is an eminently Greek idea. Some sects of mystics--Orphic or Pythagorean--taught that the spirits of the dead departed to dwell in the moon, or to shine among the constellations. Thus Aristophanes[110] transforms the Pythagorean poet, Ion of Chios, the friend of Sophocles, into the morning star. In Plato's view souls which have made a good use of their lives return to inhabit the heavenly bodies, which served as their dwelling-place before birth, and there partake of the bliss of a divine existence.

Moreover, the Greeks, as we have seen,[111] had long before told how certain heroes of fable had been transported to heaven in reward for their exploits. Hercules, Perseus and Andromeda, the Dioscuri Castor and Pollux, and many others had thus been metamorphosed into constellations. "Catasterism" forms the *dénoûment* of a number of mythological stories. Hence it did not appear bold to assign to eminent men of the day the same destiny as to the heroes of the past, and no one saw anything offensive in the supposition that their divine spirits took a place in the sky. The astronomer Conon did not hesitate even to recognise there the lock of hair which queen Berenice had dedicated to Aphrodite, and which became thenceforth a new cluster of stars. All persons, animals, and objects whose image men professed to find in the celestial vault, thus had their legends which connected them with some mythological episode or some historical event.

These doctrines, which in this way gradually spread over classical Greece, were to be taken up and transformed by the Stoics. To the disciples of Zeno the soul of man is a portion of that divine fire in which their pantheistic naturalism saw at once the productive force and the intelligence of the world. Human reason, a particle of this universal reason, was conceived as a breath, a fiery emanation. Now the stars are the most brilliant manifestation of the cosmic fire. The philosophy of the Porch, then, favoured the belief that the soul was united with the heavenly bodies by a special relation, and thus Stoicism was readily reconciled with astrology. It is a remarkable fact that this doctrine was defended, in the second century before our era, notably by Hipparchus, who was not only one of the great astronomers but a convinced adept of astrological theories, and, as we have seen,[112] Pliny applauds him warmly for having proved better than any one else that man is related to the stars and that our souls are "a part of the heaven."

Yet the pure Stoics, as we said above, while fully admitting the continued existence of this divine essence which warms and governs the body, inclined to the belief that after death it was reabsorbed into the universal fire without retaining any individuality. But very early this philosophy was led to make concessions to popular beliefs. Certain of its professors sought to bring the new principles which were formulated in the sphere of physics and psychology into agreement with the mystic ideas propagated by the religious sects which began to spread from Asia over the Græco-Latin world. Posidonius, let us recall the fact, was the most active agent in bringing about this syncretism between East and West, and his pupil Cicero gives us in the *Dream of Scipio* the earliest statement of this eschatology at Rome: The souls of those who have deserved immortality will not descend to the depths of the earth, they will rise again to the starry spheres. We shall return several times to this remarkable *Dream*.

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A number of inscriptions attest the extent to which this belief had spread by the first century before our era. There is an unlimited choice of examples to quote. Thus an epitaph on a girl thirteen years old discovered in the island of Thasos[113] says: "In this tomb lies the body of a young maiden, *anthophoros* (flower-bearer) of Ceres, carried off by the merciless Fates. But her soul by the good-will of the Immortals dwells among the stars and takes its place in the sacred choir of the blest." Here is a Latin epitaph,[114] one among many of the same kind: "My divine soul shall not descend to the shades; heaven and the stars have borne me away; earth holds my body, and this stone an empty name." Epigraphy proves that these ideas of a future life became gradually prevalent. They were more and more generally accepted under the Roman Empire in proportion as Oriental religions acquired more authority, and in the last days of paganism they exerted a preponderating influence.

After this rapid sketch of the historical development of sidereal eschatology, we shall attempt to trace the outlines of the doctrine and to show its varieties.

We shall have to examine four points:

1. Who obtains astral immortality?

2. How does the soul ascend to heaven?

3. Where is the abode of the blest to be found?

4. How is the blessedness that is vouchsafed to them conceived?

1. *Who is it that wins the boon of this sidereal immortality*?

It appears certain that in the East it was at first reserved for

those monarchs who, while still on earth, were raised by the reverence of their subjects above their fellow-men and put almost, or altogether, on a level with the heavenly

powers. Traces of this primitive conception survived even at Rome. According to a tradition which is echoed by Manilius,[115] Nature first revealed her mysteries to the minds of kings, whose lofty thoughts reach the summit of the heavens. Another doctrine was also taught, that the divine souls of sovereigns come from a higher place than those of other men, that the greater a man's dignity, the greater is the dower he gets from heaven. But, in a general way, the rites employed to ensure immortality to kings by putting them on a level with the gods, were by degrees extended to important members of their entourage. This was a sort of privilege, of posthumous nobility, which was conferred on great ministers of state, or which they usurped, long before the common crowd of the dead attained it. Such is the idea to which Cicero gives expression in the *Dream of Scipio* [116]: "To all those who have saved, succoured, or exalted their fatherland, there is assigned a fixed place in heaven, where they will enjoy everlasting bliss, for it is from heaven that they who guide and preserve states have descended, thither to reascend." This is the republican paraphrase of the doctrine of the divinity of kings. But if an ex-consul is thus willing to accord apotheosis to statesmen, philosophers claim it for sages, men of letters for great poets, and artists for creative geniuses. Here the old Greek worship of heroes, combined with belief in "catasterism," comes in to enlarge the narrow conception of monarchy. Hermes Trismegistus [117] taught that there were different kinds of royal souls, for there is a royalty of spirit, a royalty of art, a royalty of science, even a royalty of bodily strength. All exceptional men resemble the gods, and the people were loath to believe that they perished for ever. Some modern writers have shared this sentiment. "That a Shah of Persia or a critic of Milan," said Carducci, who had suffered at the hands of the latter class, "dies irrevocably, I believe, and I congratulate myself on the belief. But that Mazzini or that Dante Alighieri is utterly dead, I am entirely unconvinced."

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Among those heroes whose merits had opened to them the gates of heaven,-- "virtus recludens immeritis mori caelum," as Horace puts it,[118] --the military monarchies of the East placed in the forefront the warriors who had died sword in hand in defence of their country, or rather of their king. This doctrine, which was deep-rooted particularly in Syria, has been preserved, as is well known, in Islam. But, side by side with these valiant soldiers, pious priests also were judged to merit immortality, or rather they adjudged it to themselves. Who could be more worthy to mount to the stars than those who, while yet on earth, lived in their society and in contemplation of them? Then, when Oriental mysteries spread, they all professed to prolong the existence of the initiated beyond the hour of death appointed by Destiny and to exempt them from the fatal law imposed on mankind. Participation in the occult ceremonies of worship becomes an infallible means of securing salvation. The gods welcomed amongst them the faithful who had served them fervently and had purified themselves by the scrupulous performance of rites.

But the demands of a less exclusive morality did not allow happiness beyond the grave to be secured as the reward of sectarian piety. Side by side with devotional observances the practice of more essentially human virtues was demanded. The purity necessary to salvation, which was originally ritual purity, now became spiritual. Though priests doubtless insisted strongly on the fulfilment of religious duties, the more philosophical theologians looked, above all, to the psychological conditions necessary for translation to heaven. We have indicated in dealing with the subject of ecstasy, [119] --and we shall return to it shortly,--how souls made gross by carnal passions were unable to ascend to the abode of the gods of light. For those who have not kept themselves pure throughout their lives, a posthumous purification is indispensable.

2. This brings us to the second question which we have set before ourselves: *How did souls rise to the stars*?

It may be said that originally they made use of every method of locomotion: they ascended to heaven on foot, on horseback, in carriages, and they even had recourse to aviation. Among the ancient Egyptians the firmament was conceived as being so close to the mountains of the earth that it was possible to climb up to it with the aid of a ladder. Although the stars had been relegated to. an infinite distance in space, the ladder still survived in Roman paganism as an amulet and as a symbol. Many people continued to place in tombs a small bronze ladder which recalled the naive beliefs of distant ages; and in the mysteries of Mithra a ladder of seven steps, made of seven different metals, still symbolised the passage of the soul across the planetary spheres.

Though it had become difficult to reach heaven on foot, it was still possible to get there on horseback,--on the back of a winged horse. Thus the large cameo of Paris called "The Apotheosis of Augustus," represents a prince of his house, Germanicus or Marcellus, borne by a "Pegasus," which doubtless has no connection with Bellerophon's mount. Sometimes a griffin is preferred to Pegasus: the monster flies heaven-wards carrying on its sturdy back the deceased raised to the level of the gods. The dead, however, more frequently travelled in a car,--the car of the Sun. The idea that the divine charioteer drives a team across the heavenly fields existed in very early times in Syria as well as in Babylon, Persia, and Greece. The horses of fire and the chariot of fire, which carried up the prophet Elijah in a whirlwind, are very probably the horses and chariot of the Sun. In the same way, when Mithra's mission on earth was fulfilled, he had been conveyed in the chariot of Helios to the celestial spheres over the ocean, and the happy lot which the hero had won for himself he granted also to his followers. The Emperors in particular were commonly reputed to become companions of the Sun-god after death, as they had been his *protégés* in life, and to be conducted by him in his chariot up to the summit of the eternal vaults.

Finally, there is a very wide-spread belief of Syrian origin that souls fly to heaven on the back of an eagle.[120] According to the story, Etana in Babylon, like Ganymede in Greece, had been carried off in this way. The pious shared this happy lot. This is why the eagle is used as the ordinary decorative motif on sepulchral *stelae* at Hierapolis, the holy city of the great Syrian goddess, and it appears with the same meaning in the West. At the funeral rites of Emperors at Rome there was always fastened to the top of the pyre on which the corpse was to be consumed, an eagle, which was supposed to bear aloft the monarch's soul, and art frequently represents the busts of the Cæsars resting on an eagle in the act of taking flight, by way of suggesting their apotheosis. The reason is that in the East the eagle is the bird of the Baals, solar gods, and it carries to its master those who have been his servants in the world below.

All these supposed methods of reaching heaven are very primitive: they start from the supposition that a *load* has to be carried; they hardly imply a separation of body and soul, and they are anterior to the distinctions which philosophers established between different parts of man's being. They are religious survivals of very ancient conceptions, which only vulgar minds still interpreted literally.

The same idea is involved when magicians by secret processes professed to assure the credulous of the possibility of raising themselves upwards. If we are to believe Arnobius,[121] they asserted that they could cause wings to grow from the backs of their dupes, so as to enable them to fly up to the stars. One of the wonders which miracle-mongers most frequently boasted of working was that of soaring up into the air. The phenomena of levitation are produced at all periods. The power which magic professed to bestow on its adepts, is merely one particular application of this art to eschatology or rather to deification (ἀπαθανατισμός). Of this the papyrus erroneously called a "Mithraic liturgy" is the most typical example.[122]

These mechanical means of raising oneself, body and soul, to the starry vault could still be recognised by superstition, which picks up all the ideas that have dropped out in the evolution of beliefs. They carry us back to an extremely low stage of religion, as we said. Hence theologians no longer accepted them save as symbols. Other doctrines of a more advanced character were developed, and these constituted the true teaching of the great Oriental mysteries, just as they had secured the adhesion of thinking men. They connected the ascent of the soul after death with physical and ethical theories, and thus caused sidereal immortality to enter into the order of the universe. They either appealed to *solar attraction*, or based their doctrine on the actual *nature of the soul*.

The Pythagoreans already believed that the glittering particles of dust which danced ceaselessly in a sunbeam (ξύσματα), were souls descending from the ether, borne on the wings of light. They added that this beam, passing through the air and through water down to its depths, gave life to all things here below. This idea persisted under the Empire in the theology of the mysteries. Souls descended upon the earth, and reascended after death toward the sky, thanks to the rays of the sun, which served as the means of transport. On Mithraic bas-reliefs, one of the seven rays which surround the head of *Sol Invictus*, is seen disproportionately prolonged towards the dying Bull in order to awake the new life that is to spring from the death of the cosmogonic animal. But this ancient belief was brought into connection with a general theory held by the Chaldeans.[123] We saw that in the eyes of astrologers the human soul was an igneous essence, of the same nature as the celestial fires. The radiant sun continually caused particles of his resplendent orb to descend into the bodies which he called to life. Conversely, when death has dissolved the elements of which the human being is composed, and the soul has quitted the fleshly envelope in which it was imprisoned, the sun elates it again to himself. Just as his ardent heat causes all material substances to rise from the earth, so it draws to him again the invisible essence that dwells in us. He is

the Ἀναγωγεύς, "he who brings up from below," who attracts the spirit out of the flesh that defiles it. By a series of emissions and absorptions he in turn sends his burning emanations into bodies at birth and after death causes them to reascend into his bosom.

In this theory it is to the power of the sun, the great cosmic divinity, that the ascension of the soul is due. According to another doctrine mentioned above, which we are now going to consider more closely, the cause of this ascension is the physical nature of the soul.

This doctrine is set forth with great precision by Cicero in the *Tusculan Disputations*,[124] doubtless after Posidonius. The soul is a fiery breath (*anima inflammata*)--that is to say, its substance is the lightest in this universe composed of four elements. It necessarily, therefore, has a tendency to rise, for it is warmer and more subtle than the gross and dense air which encircles the earth. It will the more easily cleave this heavy atmosphere, since nothing moves more rapidly than a spirit. It must, therefore, in its continuous ascent, pass through that zone of the sky where gather the clouds and the rain, and where rule the winds, which, by reason of exhalations from the earth, is damp and foggy. When finally it reaches the spaces filled by an air that is rarefied and warmed by the sun, it finds elements similar to its own substance, and, ceasing to ascend, it is maintained in equilibrium. Henceforth it dwells in these regions, which are its natural home, continually vivified by the same principles that feed the everlasting fires of the stars.

This theory made it easier than the previous theory had done to establish a firm connexion between ethical beliefs concerning future destiny and physical theories about the constitution of the universe and the nature of man. We have seen[125] that virtue was conceived as liberation from the dominion of the flesh; the soul is never purely spiritual or immaterial, but when it abandons itself to the passions, it becomes gross, its

substance grows more corporeal, if I may use the expression, and then it is too heavy to rise to the stars and gain the spheres of light. Its mere density will compel it to float in our mephitic atmosphere until it has been purified and consequently lightened. Thus the door is opened to all doctrines concerning punishment beyond the grave. How did pagans conceive this Purgatory situated in the air?

There is a very old opinion that the soul is a breath and that, at the moment when it escapes through the mouth of the dying man, it is carried away by the winds. Thus the atmosphere was filled with wandering souls, which became demons with power to succour or harm mortals. The origin of these beliefs goes back to the most primitive animism. But the mysteries introduced into them the idea of purification. Souls tossed by whirlwinds are freed from defilements contracted during life, just as linen hung in the air is bleached and loses all odour. When, after being thus buffeted and blown about by the winds, souls are purified from part of their sins, they rise to the zone of the clouds, where they are drenched by rain and plunged into the gulf of the upper waters. Thus cleansed from the stains that polluted them, they reach at last the fires of heaven, whose heat scorches them. Not till they have undergone this threefold trial, during which they have passed through countless years of cruel expiation, do they find at length everlasting peace in the serenity of the ether.

Virgil alludes to this doctrine in the famous line of the sixth book of the *Æneid*,[126] where, speaking of souls, he says:

Aliae panduntur inanes
Suspensae ad ventos, aliis sub gurgite vasto
Infectum eluitur scelus aut exuritur igni.

Again, the passage of souls through the elements is represented symbolically on a funeral monument almost contemporary with the poet. Above the portrait of the

deceased there appear first in the spandrels of this *cippus*, two busts of the Winds facing each other. Higher up, on the architrave are two Tritons and two dolphins, which evidently represent the idea of the aqueous element. Finally, at the top of the stone, in the pediment, we see two lions which, as on the Mithraic monuments, are symbols of fire, the igneous principle.[127]

Side by side with physical ideas, mythological beliefs always retained their sway. Various sects professed to assure to the deceased a passage through these regions peopled by malevolent demons: they taught their members prayers which would propitiate hostile powers; they instructed them in formula, consisting of veritable "pass-words," which would compel the commandants (ἄρχοντες), posted to guard the gates of heaven, to allow them to enter the upper sphere. Here is a legacy from the ancient religions of the East. The Egyptian *Book of the Dead* is a veritable guide to the other world, and the Orphic tablets of Petilia are of the same character. The papyrus of Paris, called a Mithraic liturgy, affords us the most characteristic example of the use of these magical processes.

But more often the priests professed to give the soul a god to lead it on its perilous journey through the whirlwinds of air, water, and fire to the starry heavens. "Among the dead," says a funeral inscription,[128] "there are two companies: one moves upon the earth, the other in the ether among the choirs of stars; I belong to the latter, for I have obtained a god as my guide." This divine escort of souls frequently retains the name of Hermes in conformity with ancient Greek mythology. An epigram belonging to the first century of our era apostrophises the deceased in these words: "Hermes of the wingèd feet, taking thee by the hand, has conducted thee to Olympus and made thee to shine among the stars."[129] But more often the rôle of escort now devolves upon the Sun himself: We have seen[130] that at the end of paganism the royal star is figured as carrying mortals in his flying chariot. Those who had not by their piety merited the protection of the god whose duty it was to escort and introduce them, and who

nevertheless ventured up to heaven, were cast headlong into the perpetually raging gulf of the warring elements which fought unceasingly around the earth.

3. The lowest of the seven planetary spheres, that of the moon, separates the domain of the violent and restless elements and of beings subject to fate, from that of the eternal gods, where all is order and regularity. What becomes of the souls that enter this celestial zone, and where are they stationed? In other words, *where is the abode of the blest?*--the third question which we have to examine.

The masses did not attain to very precise ideas on this subject: they hesitated, they contented themselves with the general assertion that the soul is "among the stars." At the beginning of their poems, Lucan addressing Nero and Statius addressing Domitian both asked what part of heaven these Emperors will inhabit after their apotheosis [131]: Will they mount on the flaming chariot of the Sun? will they take their place as new stars among the constellations? Or even will Jupiter himself in the height of the heavens yield to them his sceptre? In the same way theologians doubted where to place the Elysian Fields. The Stoics had already emphatically declared that they were not situated in the depths of the earth, as the ancient Greeks believed. In conformity with their system of physical interpretations of mythological names, Acheron became in their eyes the air, Tartarus and Pyriphlegethon the zones of fire and hail. As for the Elysian Fields, they are found to be located sometimes in the moon, sometimes between the moon and the sun, sometimes in the sphere of the fixed stars and particularly in the Milky Way, sometimes beyond this extreme sphere of the heavens, outside the limits of the world. Among the various doctrines there are two of which we have more precise information from ancient authors. One is set forth by Plutarch after Demetrius of Tarsus [132]: it is a combination of the ideas of Posidonius with the religious beliefs of the mysteries. According to this doctrine, man is composed of body (σῶμα), nutritive soul (ψυχή), and reason (νοῦς). The body is made of earth; the vital principle, which nourishes it and

causes it to grow, is lunar; reason comes to us from the sun. Death severs from the body the nutritive soul and the rational soul; the former is dissolved in the moon, the latter ultimately, after complete purification, reascends to its original source, the fount of all light.

This doctrine was adopted by those who regarded the Sun as the principal god. But when, as we have explained,[133] paganism renounced the view that the Sun is the lord of the world, the Prime Cause, and set the Supreme Being beyond the limits of the sensible world, enthroning him above the planetary spheres in the highest of the heavens, the abode of the blest was naturally transferred to the seat of divinity; and a theory, more complicated than that of solar immortality, but doubtless only a development of it, prevailed towards the end of the Roman empire.

This psychology, which owed its triumph to the astrological cults of Asia, professed to establish a sevenfold division in the soul, to which corresponded seven creations. It taught that our soul descends from the height of heaven to this sublunary world, passing through the gates of the planetary spheres, and thus at its birth the soul acquires the dispositions and the qualities peculiar to each of these stars. After death it regains its celestial home by the same path. Then, as it traverses the zones of the sky, which are placed one above another, it divests itself of the passions and faculties which it has acquired during its descent to earth, as it were of garments. To the moon it surrenders its vital and alimentary energy, to Mercury its cupidity, to Venus its amorous desires, to the sun its intellectual capacities, to Mars its warlike ardour, to Jupiter its ambitious dreams, to Saturn its slothful tendencies. It is naked, disencumbered of all sensibility, when it reaches the eighth heaven, there to enjoy, as a sublime essence, in the eternal light where live the gods, bliss without end.

All these doctrines, then, in spite of differences in detail, taught that souls, descended from the light above, were raised to the region of the stars, where they dwelt forever

with these radiant divinities. This eschatology of "Chaldean" origin gradually displaced all others under the Empire. The Elysian Fields, which not only the ancient Greeks, but also the followers of Isis and Serapis still located in the depths of the earth, were transferred to the ether which laves the stars, and the subterranean world became henceforth the gloomy abode of malevolent spirits. This conception, a novelty in Europe, had long been that of Persian dualism, which the mysteries of Mithra imported into the West. Their theology systematically contrasts the infernal darkness, into which are plunged demons and reprobates, with the bright abodes of the gods and the elect.

4. Before concluding this lecture, we have still a fourth question to examine: *What conception was formed of the bliss reserved for the elect who were raised to the stars*?

We have seen (p. 95) that the mysteries of Bacchus and Thracian Orphism represented immortality as a sort of holy intoxication: the faithful, sharing the banquet of the gods, rejoiced with them for ever at a feast liberally supplied with wine. These beliefs were combined with sidereal eschatology, only the locality of the repast was transferred to the new Olympus, and the idea of a celestial banquet was to survive up to the end of paganism and to impose itself, at any rate as a symbol, even on Christianity.

But Plato had already ridiculed those who looked upon ceaseless wine-bibbing as the highest reward of virtue, and the author of the *Epinomis* already conceived eternal life as the contemplation of the most beautiful things which eye can perceive--that is, the constellations. This idea was developed in the sidereal cults, and Posidonius was to set forth in stately language how the contemplation of the sky and the study of the stars is the preparation for another existence, in which human reason will know the fulness of the sublime joy which a transient ecstasy causes it here below. As soon as it is delivered from the trammels of the flesh, the soul will soar to these lofty regions, whither it has hitherto been unable to escape except at intervals. Flying across the immensity of space, it will reascend to the stars from which it descended. Embracing in its view the entire

circuit of the world, it will perceive our globe as a scarcely visible point, or as an ant-heap for the dominion of which a host of minute insects contend. This earth, frozen in the north, scorched in the south, submerged all round by the ocean, intersected by deserts, devastated and defiled, is uninhabitable except here and there. How contemptible will appear to the soul the narrowness of its former dwelling, how empty the ambition of those who dream of no other immortality than glory in this finite realm! As soon as it reaches the starry spheres, reason is nourished and expands; in its former home it regains its original qualities; it rejoices among the divine stars; it contemplates all the glory of the bright heaven, and at the same time it is ravished by the accordant sounds of enchanting music, the glorious world-concert made by the harmonious movement of the spheres. Freed from the passions of the body, it will be able to abandon itself entirely to its insatiable desire for knowledge. Marvelling at the sidereal revolutions, it will set itself to comprehend them; its keener vision will enable it to discover the causes of all phenomena, and it will receive a full revelation of all the secrets of Nature--that is, of God.

The doctrine of sidereal immortality is certainly the most elevated that antiquity conceived. It was at this definitive formula that paganism stopped. This belief was not to perish utterly with it; and even after the stars had been despoiled of their divinity, it survived to some extent the theology which had created it. If I had not already abused your patience, it would be an interesting study to join you in searching for survivals of these pagan tenets through the Middle Ages, and in showing the forms which they assumed in the popular creed and amongst the divines. In general, souls continued to be represented as passing through the spheres of heaven in order to reach the abode of the Most High. May I remind you that Dante was still inspired by these most ancient astrological conceptions? His Paradise shows us the blest, who have practised the virtues proper to each of the planets, inhabiting the spheres of these seven wandering

stars. To destroy these old eschatological ideas it was necessary for Copernicus and Galileo to overthrow the system of Ptolemy and bring down those heavens peopled by bright beings, and so to open to the imagination the infinite spaces of a boundless universe.

THE END

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Footnotes

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[1] This course was not published by the Committee, but will form part of Prof. Jackson's volume on the Religion of Persia in the series of "Handbooks on the History of Religions," edited by Prof. Morris Jastrow, Jr., and published by Messrs. Ginn & Company of Boston. Prof. Jastrow's volume is, therefore, the eighth in the series. Prof. De Groot's lectures have not yet been published, but will appear in 1912. Prof. Cumont's volume is, therefore, the ninth in the series.

[2] "*Rêveries absurdes . . . une des faiblesses qui ont le plus déshonoré l'esprit humain*."

[3] See *Catalogus Codicum Astrologorum Graecorum* (ten volumes published), Brussels, 1893-1911.

[4] See Franz Boll, *Zur Erforschung der antiken Astrologie* (Neue Jahrbücher f. d. Klass. Altertum), xxi (1903).

[5] See e.g. Fries, *Studien zur Odyssee* (Mitt. Vorderasiat. Gesellschaft), 1910.

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[6] *Transactions of the Third International Congress for the History of Religions*. Oxford, 1908, i, p. 234; cf. Jastrow, *Die Religion Babyloniens and Assyriens*, ii (1910), p. 432.

[7] See below, Lecture II, p. 34.

[8] Jastrow, *l.c.*, p. 236.--Since this lecture was written, an excellent paper on this subject has been published by Carl Bezold, *Astronomie, Himmelschau and Astrallehre bei den Babyloniern* (Sitzungsb. Akad. Heidelberg, 1911, Abh. No. 2).

[9] F. X. Kugler, S. J., *Die Babylonische Mondrechnung*, 1900, and *Sternkunde and Sterndienst in Babel*, 1907--1909 (in progress). A clear and able resume of Kugler's researches has been given by Schiaparelli; see below, p. 13.

[10] One of these eclipses is noted both in Ptolemy's *Almagest* and in a cuneiform tablet, see Boll, in Pauly-Wissowa's *Realencyclopädie*, s. v. "Finsternisse," col. 2354.

[11] See below, Lecture II, p. 26, on the cycle of Meton.

[12] Schiaparelli, *I Primordi ed i Progressi dell' Astronomia presso i Babilonesi* (Extr. of "Scientia," Rivista di Scienza, iii), Bologna, 1908, p. 22.

[13] Jastrow, Die Religion Babyloniens and Assyriens, ii, p. 432.

[14] Jastrow, op. cit., ii, p. 455.

[15] Jastrow, *l.c.*

[16] See below, Lecture II, p. 28.

[17] Quint. Curtius, v, 1, 22.

[18] Diodor. Sic., ii, 29--31; Philo, *De Migr. Abrah.*, 32; *Quis Rerum div. Heres sit*, 20 etc.

[19] See below, Lecture II, p. 31.

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[20] See below, Lecture VI.

[21] Γνώμων, Herod., ii, 109.

[22] Kugler, *Im Bannkreis Babels*, 1910, p. 116 ss. See for other proofs my paper, *Babylon and die Griechische Astrologie* (Neue Jahrb. f. das klass. Altertum, xxvii), (1911), 1 ss.

[23] The "Golden Number" of the ecclesiastical calendar indicates the number of any year in the cycle of nineteen years which brings round the phases of the moon at the same dates. The dates of these phases in any year are thus the same as in other years which have the same "Golden Number."

[24] Diels, *Doxographi Graeci*, p. 344, 16 = *Fragm. der Vorsokratiker*, p. 366, 22.

[25] Plin., *Nat. Hist.*, ii, 36.

[26] Jastrow, *Revue d'Assyriologie*, vii, 1910, ss. p. 163

[27] As a matter of fact, certain copyists, not understanding the meaning of this identification, have inserted as a correction "of Kronos," but the reading of the best manuscripts is Ἡλίου not Κρόνου, as has been observed by Bidez, *Rev. de Philol.*, xxix (1905), p. 319.

[28] *Academicorum Phil. Ind. Hercul.*, ed. Mekler, p. 13, col. iii, 36.

[29] Franz Boll, *Neue Jahrb. für das klass. Altertum*, xxi (1908), p. 119.

[30] Cic., *De Div.*, ii, 42, 87.

[31] Procl., *In Tim.*, iii, 151, 1 (Diehl). On Theophrastus' translation of the tale of Akichar, see below, p. 38.

[32] Bezold and Boll, *Reflexe astrol. Keilinschriften bei Griechischen Schriftstellern* (Abhandl. Akad. Heidelberg), 1911.

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[33] See above, Lecture I, p. 3.

[34] See my paper *Babylon und die Griech. Astron.*, p. 6 ss., where the texts are fully given.

[35] See above, Lecture I, p. 9.

[36] Ptol., Syntax., v, 14; iv, 8, 11.

[37] The durations calculated by modern astronomers are:

(1) / / 29 / days / 12 / hours / 44′ / 2.9″

(2) / 27 / ″ / 7 / ″ / 43′ / 11.5°

(3) / 27 / ″ / 13 / ″ / 18′ / 39.3″

(4) / 27 / ″ / 5 / ″ / 5′ / 36″

[38] Strab., xvi, 1, 6, p. 639 C.

[39] Plin., *Nat. Hist.*, 39.

[40] Vett. Val., *Anthol.*, ix, p. 353, 22, ed. Kroll.

[41] Published, *Cat. Codd. Astr.* VIII, part ii, p. 125.

[42] Kugler, *Im Bannkreis Babels*, 1910, p. 122.

[43] Diels, *Orientalische Fabeln im Griechischen Gewande* (Internation. Wochenschrift f. Wiss., 6 Aug., 1910).

[44] Manil., i, 54.

[45] Strab., xvi, 1, 6.

[46] See below, Lecture III, p. 47.

[47] Plin., *Nat. Hist.*, ii, 26, 95.

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[48] See below, Lecture V.

[49] Strab., xvi, t, 5: Ἐρημία μεγάλη ᾽στιν ἡ Μεγάλη πόλις.

[50] See my *Oriental Religions*, p. 127 ss.

[51] See below, Lecture IV, p. 69 sqq.

[52] Diodorus Sic., ii, 31.

[53] Humann and Puchstein, *Reise in Nord Syrien and Klein Asien*, Berlin, 1890, pl. XL.

[54] See above, Lecture II, p. 40.

[55] Gardthausen, *Augustus and seine Zeit*, p. 1131.

[56] See F. Boll, *Sphaera*, Leipsic, 1903.

[57] *The Oriental Religions in Roman Paganism*, Chicago (Open Court Publishing Company), 1911.

[58] *Corp. Inscr. Lat.*, v, 5893.

[59] Λόγια Χαλδαϊκά.

[60] Capelle, *Die Schrift von der Welt*, Leipzig, 1895, p. 6 [534], n. 4. "*Contemplatorem caeli*." "Οὐ μόνον θεατὴν ἀλλὰ καὶ ἐξηγητήν."

[61] Cic., *Nat. Deorum*, ii, 21, § 56.

[62] See above, Lecture II, p. 23.

[63] See above, Lecture I, p. 18.

[64] Manil., *Astron*., 495 sqq.

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[65] Cic., *Nat. Deor.*, ii, 63 (=Zenon. fr. 165 von Arnim).

[66] See above, Lecture I, p. 19.

[67] Proclus, *In Timæum*, 248 D.

[68] See above, Lecture I, p. 18; II, p. 29.

[69] *Religions orientates*, 2d edition, Paris, 1909, p. 375, n. 80 (Engl. translation, p. 258, n. 80).

[70] Cicer., *Somn. Scipionis*, c. 4.

[71] See above, Lecture I, p. 11.

[72] Bouché-Leclercq, *Astrologie grecque*, p. 131.

[73] See below, Lecture V, p. 91.

[74] See Lecture V, p. 90.

[75] See my paper, *La Théologie solaire du Paganisme romain* (*Mém. Acad. Inscr.*, xii). Paris, 1909.

[76] Renan, *Dialogues et Fragments philosophiques*, 1876, p. 168.

[77] See above, this Lecture, p. 66.

[78] Plin., *Nat. Hist.*, ii, 5, § 13.

[79] Cic., *Somn. Scip.*, 4.

[80] See below, Lecture VI, p. 103.

[81] See above, Lecture IV, p. 55.

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[82] "Le silence éternel de ces espaces infinis m'effraie." (Pascal, *Pensées*.)

[83] Seneca, *De Beneficiis*, iv, 23.

[84] Manil., v, 742:

Cui si pro numero vires natura dedisset,
Ipse suas aether flammas sufferre nequiret,
Totus et accenso mundus flagraret Olympo.

[85] See above, Lecture IV, p. 57.

[86] See above, Lectures I, p. 20; II, p. 40; IV, p. 73.

[87] Anthol. Palat., ix, 577.

[88] Νηφάλιος μέθη (Philo).

[89] Seneca., *Suasor*., 4.

[90] Manilius, iv, 407.

[91] Cleomedes, *De Motu Circul*., ii, 1, § 87.

[92] See above, Lecture I, p. 17.

[93] See above, Lecture II, p. 40.

[94] Manil., iv, 14.

[95] Seneca, *De Provid.*, v, 5.

[96] Seneca, *Quasi. Nat.*, ii, 35, "*Aegrae mentis solacia*."

[97] Suetonius, *Vita Tib.*, 69.

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[98] Vettius Valens, v, 9 (p. 220, 28 ed, Kroll).

[99] Alex. Aphrod., *De Anima Mantissa*, p. 182, 18 ed. Bruns.

[100] See above, Lecture I., p. 18.

[101] See below, Lecture VI, p. 100 ss.

[102] Tacit., *Hist*., iii, 24.

[103] See above, Lecture IV, p. 67.

[104] Lucret., III, 37:

Et metus, ille foras praeceps Acheruntis agendus
Funditus humanam qui vitam turbat ab imo.

[105] *Poèmes antiques*, "Dies Irae."

[106] O Death divine, at whose recall
Returneth all
To fade in thy embrace,
Gather thy children to thy bosom starred,
Free us from time, from number, and from space,
And give us back the rest that life hath marred.

[107] Pliny, *Nat. Hist*., vii, 55, § 188.

[108] Corp. Incr. Att., i, 442: Αἰθὴρ μὲν ψυχὰς ὑπεδέξατο, σώματα δὲ χθών.

[109] See above, Lecture II, p. 23 sqq.

[110] Aristoph., *Pax*, 831.

[111] See above, Lecture IV, p. 65.

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[112] See above, Lecture II, p. 40.

[113] Kaibel, *Epigr. Gr.*, 324.

[114] Buecheler, *Carmina Epigr.*, 611.

[115] Manil., i, 41.

[116] Cic., *Somn. Scip.*, c. 3.

[117] Herm. Trism. ap. Stobaeum, *Ecl.*, p. 466, Wachsmuth.

[118] Horace, *Odes*, iii, 2, 21.

[119] See above, Lecture V, p. 83.

[120] For further details see my paper "L'aigle funéraire des Syriens et l'apothéose des empereurs" (*Revue de l'histoire des religions*), 1910.

[121] Arnob., *Adv. Nat.*, ii, 33, 62 (p. 65, 5; 97, 27, Reifferscheid).

[122] Dieterich, *Eine Mithrasliturgie*, 1910, compare my *Oriental Religions* (1911), p. 260.

[123] See above, Lecture IV, p. 73 ss.

[124] *Tusc. Disp.*, i, 43, § 18.

[125] See above, p. 100, and Lecture V, p. 83.

[126] Virgil, *Æn.*, vi, 740.

[127] *Jahresb. Inst. Wien*, xii (1910), p. 213.

[128] Kaibel, *Epigramm. Græca*, 650.

[129] Haussoullier, *Revue de philologie*, 1909, p. 6.

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[130] See above, p. 101.

[131] Lucan, i, 45 ss. Stat., *Thebaid*., i, 22.

[132] Plut., *De Facie in Orbe Lunae*, c. 26; cf. my *Théologie solaire*, pp. 464, 475.

[133] See above, Lecture IV, p. 75.

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